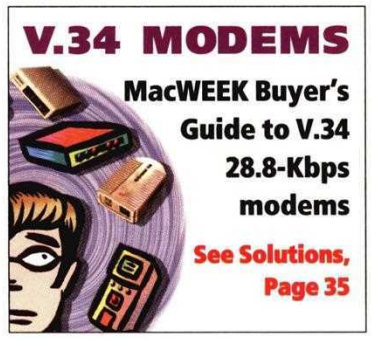
MacWEEK

07.31.95 | *The Newsweekly for Macintosh Managers* | VOLUME 9 NUMBER 30



New RISC Macs' bottom line

PCI Macs to carry NuBus price tags

By Robert Hess

Apple will unveil three more models of its PCI Mac lineup at next week's Macworld Expo in Boston. Covering the spectrum from a high-range model for about $4,500 to a low-end offering for less than $2,000, the new Power Macs have already drawn positive responses from early users.

As previously reported, the Power Mac 8500/120, powered by a PowerPC 604 running at 120 MHz, will ship with three PCI slots. It will come in two configurations. An 8500/120 with a 1-Gbyte hard drive, 16 Mbytes of memory, a 256-Kbyte Level 2 cache and a quadruple-speed CD-ROM drive is expected to carry a street price of roughly $3,900. The same Mac with a 2-Gbyte drive will sell for about $4,500.

The 8500/120 will reportedly provide 24-bit video input with real-time playthrough at up to 640 by 480 pixels with NTSC and 768 by 576 pixels with PAL (European) and SECAM (French). In addition, it will handle up to

See Desktops, Page 74

How the next desktop wave stacks up

MODEL (PROCESSOR)	CONFIGURATIONS	EST. STREET PRICING	SHIP DATE
8500 (120-MHz 604)	16/1GB/CD, 16/2GB/CD	$3,900, $4,500	Aug. 7
7500 (100-MHz 601)	16/500/CD, 16/1GB/CD	$2,700, $3,000	Aug. 7
7200 (90-MHz 601)	8/500/CD	$1,900	Aug. 7
7200 (75-MHz 601)	8/500/CD	$1,700	Aug. 7

PowerBooks turn new page

MODEL (DISPLAY)	CONFIGURATIONS	EST. STREET PRICING	SHIP DATE
5300ce/117 (10.4" AMC)	8/500, 32/1GB	$3,650, $6,450	Sept. 13
5300cs/100 (10.4" DSC)	8/500, 16/750	$2,800, $3,500	Sept. 13
5300/100 (9.5" PMG)	8/500	$2,199	Sept. 13
2300c/100 (9.5" AMC)	8/750, 20/1GB	$3,500, $4,450	October
190cs/66* (10.4" DSC)	8/500	$2,199	October
190/66* (9.5" PMG)	4/500, 8/500	$1,650, $1,850	October

Key: AMC = Active-matrix color, DSC = Dual-scan color, PMG = Passive-matrix gray scale.
**The "66" actually denotes the use of a 33-MHz 68LC040 CPU, not a 66-MHz CPU.*

RAM, drives to expand in PPC PBs

By James Staten

Because of production problems, Apple will forgo sales of PowerPC-based PowerBooks during the back-to-school rush, sources said; the new portables won't begin shipping until the middle of September, and some models won't ship until as late as the end of October.

Apple has reportedly pushed the introduction and shipment date for its PowerBook 5300 series to Sept. 13 to avoid worldwide shortages. The PowerPC-based Duo, two 68LC040-powered versions of the 5300, and the upgrade cards for the PowerBook 500 and 200 series are

See Portables, Page 74

Power 100 clone prices head south

By David Morgenstern

Just as it eradicates its outstanding backlog and reaches full production, Power Computing Corp. this week is expected to announce deep price cuts on its Power 100 Macintosh-compatible line.

As of today, the price of the base Power 100 configuration is down to $1,699 from $2,399; other configurations were similarly trimmed. The three-slot NuBus machine features a 100-MHz PowerPC 601, 8 Mbytes of RAM, 256-Kbyte Level 2 cache, 365-Mbyte hard drive, built-in Ethernet and AppleDesign extended keyboard (see MacWEEK, April 17, Page 1). The system ships with a software bundle that includes Intuit Inc.'s Quicken 5.0; Now Software Inc.'s Now Contact, Now Up-to-Date and Now Utilities; FWB Inc.'s Hard Disk Toolkit; Bitstream Inc. fonts; and a trial version of Insignia Solutions Inc.'s SoftWindows 1.0.

See Power, Page 74

Fargo printer cuts contone color costs

By Matthew Rothenberg

Instead of going to a photo lab, users will be able to print 4-by-6-inch photos with a new dye-sublimation printer from Fargo Electronics Inc. priced at less than $500.

Fargo told MacWEEK that FotoFUN!, to debut and ship at next week's Macworld Expo in Boston, will list for $499.95, and the company said it expects the device to fetch a street price of about $399.

FotoFUN! draws on the same proprietary print technology as Fargo's $4,995 Pictura 310. Unlike the Pictura, which switches between thermal-wax and dye-sublimation modes and prints full-bleed tabloid-size pages,

See Fargo, Page 76

Dantz to waltz in with friendlier Retrospect

By David Morgenstern

Dantz Development Corp. will reportedly put a new face on backups in September when it releases Retrospect 3.0. Sources said the upgrade will significantly strengthen the popular utility's ease of use, expand support for PowerBooks and offer users a helping hand via an automated assistant.

The Orinda, Calif.-based company is expected to uncover the $249 Retrospect 3.0 and the $449 Retrospect Remote 3.0 at next week's Boston Macworld Expo.

According to sources, users will enter Retrospect 3.0 through a new tabbed-folder interface for the most commonly used commands. Instead of requiring users to select volumes individually, a Local Desktop command will back up local disks automatically

See Retrospect, Page 76

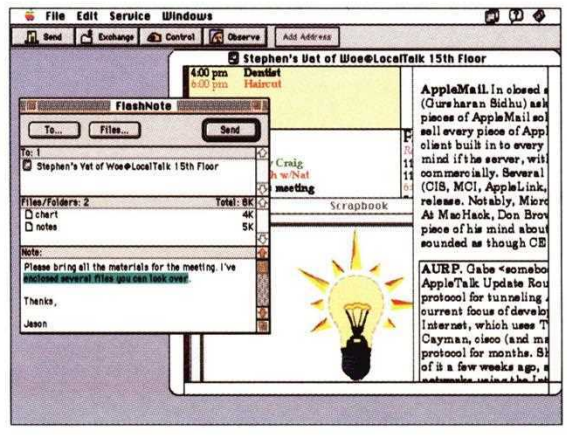
Timbuktu Pro's new view

By Clifford Colby

Farallon Computing Inc. is preparing an interface and protocol upgrade to Timbuktu Pro, its screen-sharing and file transfer utility, sources said. Due this fall or winter, Version 2.0 is expected to include expanded IPX and over-the-LAN drag-and-drop capabilities.

With an updated 3-D interface sporting tabs in windows and dialog boxes, the cross-platform Timbuktu Pro 2.0 will reportedly be able to access machines over Novell

See Timbuktu, Page 76



The upcoming version of Timbuktu Pro is expected to include the FlashNotes feature, which lets users attach messages to files sent to remote machines.

NEWSPAPER SECOND CLASS

BACKUP N CD!

THE #1 SELLING RECORDABLE CD SYSTEM BY PINNACLE MICRO **$1495**

2 out of 3 Recordable CD Systems sold today are Pinnacles!

THE PINNACLE RCD-1000 IS 3 DRIVES IN 1!

1. 2X Recordable CD System

2. Double-speed CD-ROM Player

3. Tape Backup Replacement

Multimedia Version with TOAST Software
$1595

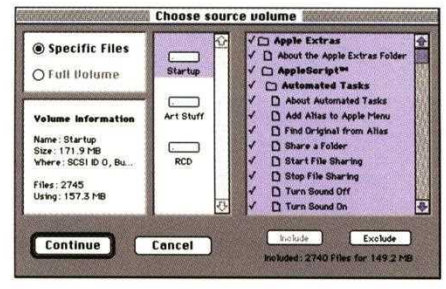
•

Data Archiving Version with Pinnacle Software
$1495

Includes: Recordable CD software, valued at over $500, as well as the new UP! Multimedia CD with 100 Startup Motivational Videos, a $59.95 value, *and* 2 pieces of FREE Recordable CD media!

The RCD-1000™ is virtually 3 drives in 1 - making it the ultimate storage device for only $1495. With the flexibility of Pinnacle's RCD-1000, the applications are endless. As a **CD Recorder**, the RCD-1000 allows you to master your own CD that can be easily transported across town - or across the globe. As a **double-speed CD-ROM player**, it can read virtually thousands of educational, multimedia or audio CDs. And with Pinnacle's new **Backup Utility**, you can now replace your tape drive with a system that provides a more reliable solution and fast random access to your data for only $19 per disc, or **3 cents** per megabyte. Each disc boasts 650 MB of data, audio, and video storage capacity.

The RCD-1000 is perfect for creating and mastering your own multimedia titles, interactive games, or even mixing your own audio CD of favorite tunes. You can back up accounting records, business plans, charts and graphs, or confidential information on CDs for decades - safe and secure. The RCD-1000 system is simply **the best** way to store, archive, distribute and create information. Best of all, it's now affordable - it's recordable!



RCD *Backup Utility*

TAPE IS OUT.

- Tape is slow
- No random access
- Five-year shelf life (Avg.)
- Too many different formats
- Reliable?

OPTICAL IS IN.

- Recordable CD is fast
- Random access
- One hundred-year shelf life
- CD-ROM standard format
- Very reliable

THE NASDAQ STOCK MARKET™ NASDAQ Traded Under Ticker Symbol PNCL PINNACLE MICRO, INC.

To order or for a dealer near you call: 800-553-7070

COMPACT disc Recordable

PINNACLE MICRO
THE OPTICAL STORAGE COMPANY®

Tel: 714-789-3000 Fax: 714-789-3150

All Trademarks and Registered Trademarks of Their Respective Owners.

MacWEEK

07.31.95 VOLUME 9 NUMBER 30

4 UP FRONT

PCI in limited supply • Claris Emailer unifies mailboxes • New HP inkjet spans platforms

6 NEWS

NI brings PCI cards to Mac tech market • Electrohome, Polaroid, Sharp line up projectors • SPSS statistics app goes native

10 GA

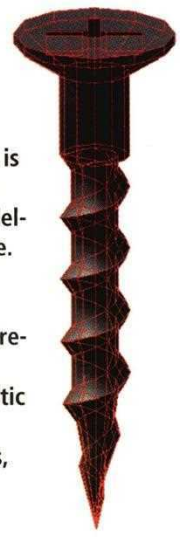
PowerShop opens on PCI bus • binuscan upgrades color-correction software • Enhanced CDs merge music, multimedia

12 GATEWAYS

Stalker unveils low-end, multifunction mail system • Miramar preps AppleTalk for Windows 95 • AGE ships native X server

18 BUSINESS

Apple's anti-Windows ad campaign • Quarterly results • Apple in China, Part 2



autodessys' form•Z RenderZone is still pushing the 3-D modeling envelope. Version 2.7 lets users create texture-mapped photo-realistic renderings. See Reviews, Page 24.

Developers are learning to stay a step ahead of what customers want in a constantly changing field. See Gateways, Page 12.

Adaptive's PowerShop Photoshop accelerator gets a PCI version, increasing speed by up to 1,000 percent. See GA, Page 10.

Even expert Mac users can get caught up in RAM, disk and file-system problems. The best defense is a good offense: Readers suggest some places to begin looking for gremlins in your system. See MacInTouch, Page 38.

24 REVIEWS

autodessys' form•Z RenderZone 2.7g pushes the 3-D modeling envelope • State of the Art's FlexWare 8.0 high-end accounting app goes native • In Brief: PROmotion 1.5.3

35 SOLUTIONS

Our Buyer's Guide on V.34 standard modems covers a range of products in a range of prices for the corporate buyer.

DEPARTMENTS & OPINION

22 Editorial
22 Second Decade
23 Letters
23 Mac Manager
38 MacInTouch
76 StockWatch
78 Mac The Knife

ALSO INSIDE

39 Mail Order
54 MarketPlace
77 Advertiser Index
77 Product Index

MACWEEK INSIDER ANDREW GORE

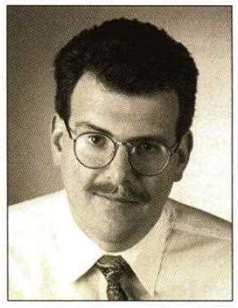
A Fractured Fairy Tale

There are many kinds of fairy tales. There are those favored by Disney, where the good guys, those with middle-class values, live happily ever after. Then there's the Shakespearean bent of Grimm, where everyone suffers no matter what their moral standing.

And then there's the PowerBook fairy tale, the one that Apple likes to tell, about what a clever, competitive and cool portable product the company builds.

Unfortunately, the current state of Apple's lineup, including the running-later-all-the-time 5300 and 2300 series, is more like a Fractured Fairy Tale than a Cinderella story.

First, a little history: When PowerBooks first debuted in October 1991, the world showed so much enthusiasm for the portables that the 170 was on perpetual back order until it was discontinued. Just 12 months later Apple reported PowerBook sales of $1 billion, making it the No. 1 vendor of notebook systems in the United States.



In the past two years, a series of management changes, a bloodletting in engineering and a general malaise in PowerBook innovation has caused public awareness of Apple's portables to slip to 40 percent lower than that of the company's desktop line. The latest numbers from International Data Corp. show PowerBook sales growing at the same rate as the overall portable market and put Apple's market share at a static 8.1 percent, ranking it No. 5 worldwide.

This when Dell Computer Corp. grew its year-to-year share by some 1,300 percent. I'm sure there's no coincidence that just a couple of years before, the PowerBook 100-series team became Dell's favored hunting ground for new talent.

Now come the latest PowerBooks. Yes, they have PowerPC, but so what? The fastest machine in the line goes toe-to-toe with a 6100/66. With 90-MHz Pentium notebooks just around the corner, all I can say is, "Big wow."

And don't blame the 5300ce's speed on its 117-MHz 603e. I have it on good authority that, with the addition of a 64-bit bus and a modicum of Level 2 cache, the 603e is a blazingly fast chip for the price.

The 5300ce won't even match my PowerBook 540c in many respects. It's faster, except when running software in emulation. It also has a bigger screen, although if Apple were to offer the 550c in the United States instead of only in Japan, I could also get a 10.4-inch display. It has two PCMCIA slots, which is the only way you'll be able to add a modem and Ethernet, which come standard on my 540c. It's unbelievable that a top-of-the-line 5300 costs $6,500, and you don't even get a modem with it.

Apple shouldn't kill the 500 series to push customers to a new offering.

The 5300 has a 3.5-inch removable drive, and there are just tons of 3.5-inch CD-ROMs I'm dying to try out. I get to trade the flexibility of my 540c's two batteries for the 5300's single power pack. Oh yes, and it has that nice boxy chassis — I guess that's for folks who'd rather drive a Volvo than a Ferrari.

So, if this next round of PowerBooks will attract more poison apples than Prince Charmings, how do we get a happy ending?

Here's my three-stepsister program: First, offer the 550c, with and without a PowerPC daughtercard, worldwide. Apple shouldn't kill its most compelling notebook to push customers toward the latest offering.

Second, return to the basic values that made PowerBooks a success in the first place: sexy designer chassis, truly clever innovation and well-thought-out designs. Don't graft on PCMCIA just because everyone else is doing it.

Finally, Apple should produce Pentium-based portables. The company needs to realize that it's in the PowerBook business, not the Macintosh portable business. It's the PowerBook design language that attracts buyers. Apple should take full advantage of this.

Even if Apple doesn't find these suggestions worthy, I still have hope that, like Sleeping Beauty, a handsome royal will soon arrive to wake up the PowerBook team. Or else it could take a lot more than a kiss to resuscitate Apple's portable business. □

Andrew Gore is executive editor/news at MacWEEK. He welcomes feedback at Andy_Gore@macweek.ziff.com.

MacWEEK (ISSN 0892-8118) is published weekly, with the exception of July 3, Nov. 20, and Dec. 18 and 25, by Ziff-Davis Publishing Co., 1 Park Ave., New York, N.Y. 10016. Single-copy price, including postage: $6. One-year subscription rate: U.S., $125; Canada/Mexico, U.S. $225; International, U.S. $350 (airmail). All orders must be prepaid. Direct **subscription inquiries** to Customer Service Department, MacWEEK, c/o JCI, P.O. Box 10634, Riverton, N.J. 08076-0634; (609) 786-8230. **Changes of address** require that a new application be filled out completely and include both new and old addresses. Allow four to six weeks for processing. We periodically make lists of our customers available to carefully screened mailers of quality goods and services. If you do not wish to receive such mailings, please let us know by writing to us at Customer Service Department, MacWEEK, P.O. Box 10633, Riverton, N.J. 08076-0633. **Postmaster:** Send address changes to MacWEEK, P.O. Box 1766, Riverton, N.J. 08077-7366. Second-class postage paid at New York and additional mailing offices. Printed in U.S.A. Canadian GST registration number is R140496720.

PCI cards in short supply

Most 9500 slots remain empty

By James Staten

Owners of Power Mac 9500/132 models may be stuck staring at a blank screen this summer as their PCI slots gather dust. According to dealers and recent purchasers, PCI cards are as rare as Mac the Knife mugs.

"It looks like the only ones [my distributors] show being available are from FWB [Inc.]," said Rick Dagenais, a partner at MicroAge/Computer Systems & Software Inc. of Leominster, Mass. He said that accelerated SCSI cards from Menlo Park, Calif.-based FWB may be in stock, but display cards, which the 9500/132 units lack, are nowhere to be found.

ATI Technologies Inc. builds the Apple Accelerated PCI Graphics Card bundled with the 9500/120 and a self-labeled version for 9500/132 models. It is one of only three companies that claim to currently be shipping PCI display cards for the 9500 (see chart), and it said that supply is constrained on its end.

"We're finding that demand for the [Power Mac] 9500/132 is far higher than forecast, and here we are producing a lot of product for the 9500/120 [models]," said David Paolini, PR manager for the company.

Shifting its supply to the faster 9500/132 is no easy matter, Paolini said. ATI's third-party version of the card is a different product, featuring two monitor ports instead of the single output available with the 9500/120, he said.

However, Jewelle Schiedel, Apple product manager at the Thornhill, Ontario-based company, said ATI is diverting components from its Intel-standard PCI boards to increase the volume of its Mac products. "We're quadrupling our capacity," she said.

Patti Stanton, marketing administrator at Ingram Micro Inc., a distributor in Santa Ana, Calif., said another reason for the shortage could be delays in distribution. "If a product is sent through distribution, we have to take it into our warehouse, [catalog it] and list it in our database," she said. "This can take as long as a week to 10 days."

In any case, dealers said, buyers haven't been beating down the doors for cards.

"We haven't sold very many 9500s, so there hasn't been any demand from our customers for PCI cards," said a large East Coast dealer who asked not to be named. "And we don't have any plans to stock them until the rest of the PCI Macs ship."

"It's a market issue," MicroAge's Dagenais said. "You have to have a pretty good-sized market out there to sell to.

"This is like putting the cart before the horse. If I were a developer, I wouldn't be shipping PCI cards for the Mac right now." □

PCI cards that have shipped

COMPANY	TYPE OF CARD
Asanté Technologies Inc.	Fast Ethernet
ATI Technologies Inc.	Accelerated graphics
Diamond Multimedia Systems Inc.	Accelerated graphics
Distributed Processing Technology Corp.	Accelerated SCSI and RAID
Farallon Computing Inc.	Fast Ethernet
FWB Inc.	Accelerated SCSI and RAID
Precision Digital Images Corp.	Digital video
Radius Inc.	Graphics accelerators
Rockwell Networking Systems	Fast Ethernet
Spectra Systems Corp.	FDDI networking

Number Nine raises video board limit

Unveils 128-bit graphics card

By James Staten

Mac graphics professionals looking for higher performance figures can soon add Number Nine Visual Technology Corp. to their score sheets. The company this week will unveil a Mac version of its 128-bit PCI graphics accelerator.

Scheduled to ship in September, the Imagine128 for Power Mac is the first PCI graphics accelerator to offer a true 128-bit on-board bus, the company said. This feature allows the board to pour data out to a monitor at twice the rate of other graphics cards and simultaneously process 16 eight-bit pixels or four 32-bit pixels. Number Nine said the board will allow users to move a full-screen 24-bit image around a screen in real time.

The $1,599 Imagine128 with 8 Mbytes of on-board video RAM supports resolutions up to 1,600 by 1,200 pixels in 24-bit color. An $899 model with 4 Mbytes of VRAM supports resolutions up to 1,152 by 870 pixels in 24-bit color and 1,600 by 1,200 pixels in 16-bit color.

The board will come with several display control utilities that will let users adjust size, resolution, placement and other screen settings via hot keys or on-screen controls. The board will also provide the capability to power down a monitor when not in use, switch resolutions on the fly and work with color-calibration software.

Both models are covered by a five-year warranty.

Number Nine Visual Technology Corp. of Lexington, Mass., can be reached at (617) 674-0009 or (800) 438-6463; fax (617) 674-2919; http://www.nine.com. □

Claris Emailer makes for all-in-one e-mail

By Nathalie Welch

Claris Corp. last week delivered Claris Emailer, software designed to offer users a unified interface and a single mailbox for multiple e-mail accounts.

Developed by San Francisco-based Fog City Software Inc., the $89 package enables users to exchange e-mail with those on America Online, CompuServe, eWorld and RadioMail. Emailer also works with SMTP (Simple Mail Transfer Protocol) and Post Office Protocol 3 servers (see MacWEEK, March 27, Page 76).

Emailer guides users through setup with prompts for e-mail account information and connection preferences; mobile users can store multiple configurations.

"I can go anywhere in the world — and I travel a lot — make one connection and check all my mail with just one phone call," said Peter Linde, president of the Linde Group Computer Support Inc. of Oakland, Calif., who tested the program. "It saves me time — which I care about a lot — but it also saves me money."

Emailer's text editor lets users drag and drop text in messages, which can contain up to 64 Kbytes of text with color highlights. Addresses can be imported from compatible services or any tab-delimited file; groups can contain up to 250 addresses.

Mail Actions can sort, file, forward and reply to e-mail automatically based on selected criteria. Users can drag and drop file enclosures, with an option to perform automatic compression; formats include BinHex, Uuencode and MIME (Multipurpose Internet Mail Extensions).

Users access incoming mail via the main Browser screen. A Filing Cabinet function lets users create individual folders for storing messages; messages can also be purged automatically after a predefined period.

Claris Corp. of Santa Clara, Calif., can be reached at (408) 987-7000 or (800) 544-8554. □

HP inkjet spans platforms

By Matthew Rothenberg

Hewlett-Packard Co. this week will add to its recent flood of inkjet printers with a speedy new cross-platform model.

The DeskJet 850C low-cost inkjet ships with interfaces for Macs and Intel-standard PCs.

The $658 DeskJet 850C outputs up to six black-and-white and two 24-bit-color pages per minute, the company said, and handles letter- or legal-size pages.

The printer is based on HP's own 600-dpi engine and includes proprietary technologies for sharpening halftones and increasing color fidelity.

According to HP, the 850C will be the first low-cost inkjet device to ship with LocalTalk, high-speed serial and Centronics parallel interfaces. The 850C includes a 150-sheet feeder.

Another first for an HP product is the plastic used in the printer's outer casing; HP said the case includes up to 25 percent recycled plastic.

HP will also offer the printer as the DeskJet 855C, a $663 package that includes a Photo CD trial offer from Eastman Kodak Co. and achieves speeds of 7 ppm and 3 ppm for black-and-white and color output, respectively.

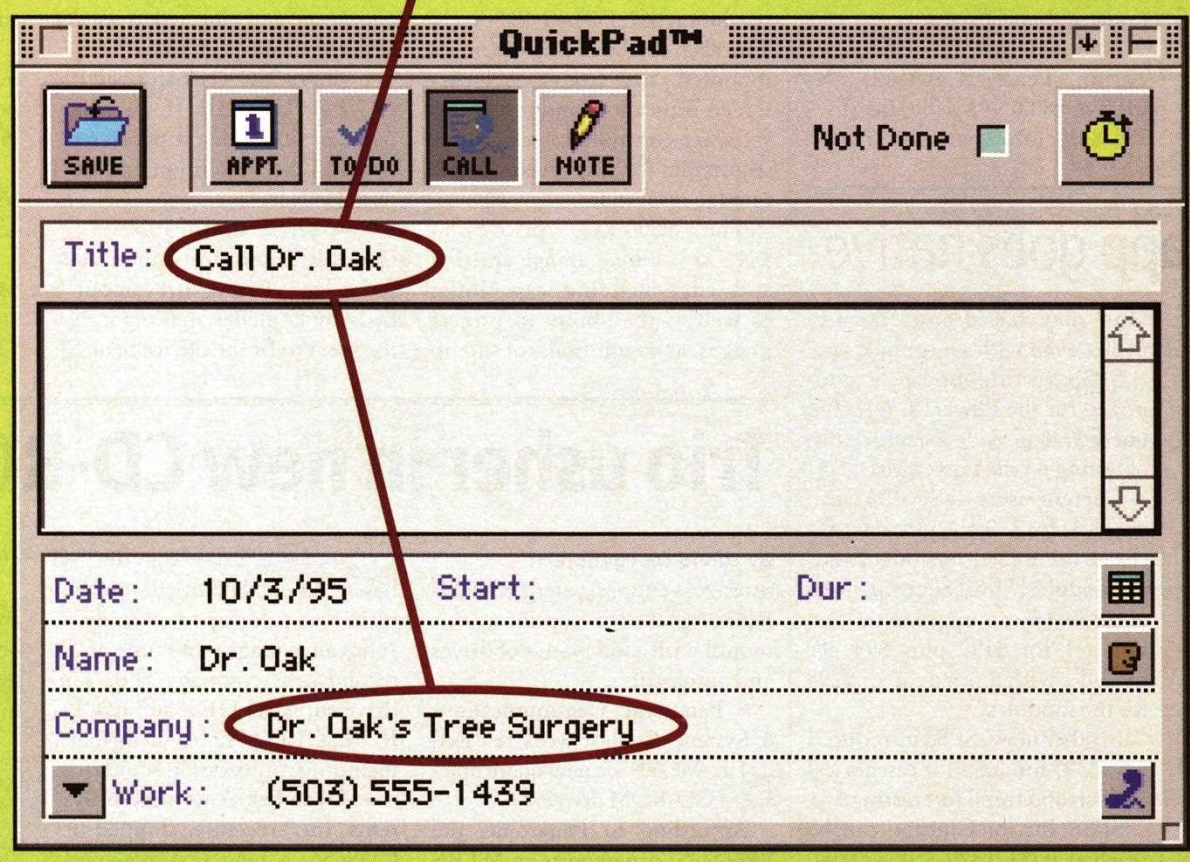
In other inkjet news, HP this week announced a $100 price cut on its DeskWriter 660C; the color inkjet will now list for $499 (see MacWEEK, July 24, Page 30).

Hewlett-Packard Co. of Palo Alto, Calif., can be reached at (800) 752-0900; http://www.hp.com. □

Now Software

MACWORLD MW EDITORS' CHOICE 1993 — World Class Winner 1994 Macworld

"Yes, this is Dr. Oak. Ahhh, sorry to leave a message like this, but, ahhh . . . I did everything I could to save her. If only I'd gotten there sooner. Please call me right away."

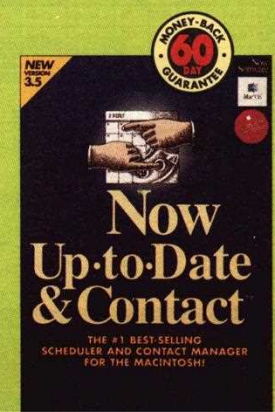


As fast as you can type "call Dr. Oak," new QuickPad from Now Software shows you critical information. Just as fast, QuickPad lets you update your personal calendar, add to your to-do list, capture voice mail messages, and share information with your team. It's just one of the many ways new Now Up-to-Date & Contact Version 3.5 lets you manage your life on the fly.

Call **1-800-544-2638** for your **free 30-day trial** of the #1 best-selling scheduler and contact manager for the Macintosh.

Now Software. Making every second count.

Stop by MacWorld booth #5012 for your FREE 30-day trial CD.


NEW VERSION 3.5
MONEY-BACK 60 DAY GUARANTEE
Now Up-to-Date & Contact
THE #1 BEST-SELLING SCHEDULER AND CONTACT MANAGER FOR THE MACINTOSH!

NI deals PCI card to tech market

By David Morgenstern

National Instruments Inc. is gearing up to offer scientists and engineers a PCI interface with a new line of add-on boards.

The company last week released its $495 PCI-GPIB, a General Purpose Interface Bus PCI card that supports the IEEE 488.2 standard. The card handles up to eight GPIB interfaces and 64 connected devices. It comes with a Power Mac version of National's cross-platform NI-488.2 control package and API.

In addition, National said it is planning to bring its PCI-based data-acquisition boards to the Mac by October.

The first of National's E-series boards for Macs, the $1,295 PCI-MIO-16XE-50, will use several custom chips that let the card be configured via software instead of jumpers or DIP switches. The software will control I/O addresses, interrupts, range, polarity, gain and calibration, National said.

The 16-bit board supports either 16 single-ended or eight differential channels of analog, digital and timing data. National said the card will provide a maximum sampling rate of 20,000 samples per second.

The $795 PCI-1200 will feature a 12-bit digital-to-analog conversion resolution and offer a 100,000-sample maximum sampling rate, National said. It will support eight single-ended or four differential data channels.

A 96-bit parallel digital I/O card, the PCI-DIO-96, will cost $395.

The company will bundle the data-acquisition cards with its NI-DAQ software library of function controllers. The cards will also support LabVIEW, National's $1,995 instrumentation-programming environment, and HiQ, its $695 numerical-analysis software.

National Instruments Inc. of Austin, Texas, is at (512) 794-0100 or (800) 433-3488; fax (512) 794-8411; info@natinst.com. □

SPSS statistics app goes native

By David Morgenstern

SPSS Inc. this week will multiply the power of SPSS 6.1 when it introduces the cross-platform statistics package to the Power Mac.

Identical in features and price to the 680x0 version released in January, the $695 Power Mac-native update is up to five times faster, SPSS said. Up to now, users have had the math-intensive application in emulation with the shareware SoftwareFPU control panel.

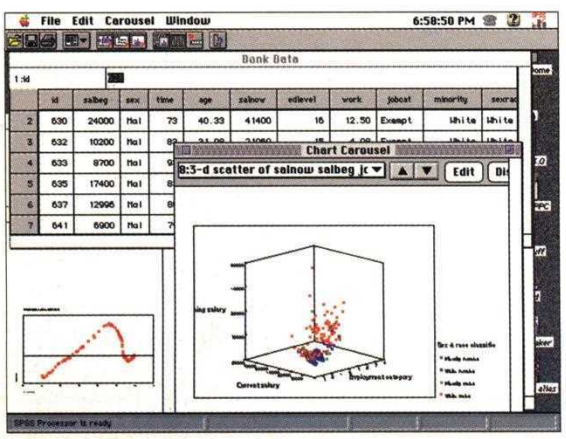
"Running under SoftFPU, [SPSS] was pretty quick," said beta tester Doug McKenzie-Mohr, a psychology researcher with St. Thomas University at Fredericton, New Brunswick. "But now it's almost instantaneous, even with a large data set."

SPSS said the update is optimized for the PowerPC 604 chip but did not provide specific results of testing on the Power Mac 9500.

Current users of SPSS 6.1 can upgrade for $39; the price also includes optimized versions of add-on modules. Until Sept. 30, users of SPSS 4.0 can upgrade to Version 6.1 for $199 plus $99 per module, with a price cap of $298 for the modules.

In other news, SPSS introduced new $395 modules for categorical analysis and trend forecasting.

SPSS Inc. of Chicago can be reached at (312) 329-3500 or (800) 543-2185; fax (312) 329-3668. □



Besides increased speed, the Power Mac version of SPSS 6.1 supports QuickDraw GX printing.

Projectors shine bigger, brighter

Three vendors ship new devices

By James Staten

Public speakers can now address larger audiences in brighter rooms thanks to new projectors from Electrohome Projection Systems, Polaroid Corp. and Sharp Electronics Corp.

▶ **Electrohome** last month shipped three high-end CRT-based units capable of controlling up to 86 video sources simultaneously and projecting images larger than 30 feet diagonally.

All three units feature contrast-modulation, gray-scale tracking, gamma-correction and video-decoding technologies that provide improved image quality and automatically align images from three stacked projectors.

The 8100 and 8500, which both start at $20,995, have a maximum resolution of 1,350 by 1,100 pixels. The 8500 can be ceiling- or table-mounted for front- or rear-screen projection, and it features software-controlled electronic stigmators for improved center-to-edge resolution.

The 9500-LC, priced at $34,995, adds image-shifting and edge-blending capabilities as well as the ability to project images at resolutions of up to 1,500 by 1,200 pixels.

▶ **Polaroid** last week shipped four new models of LCD panels capable of displaying images at 640 by 480 pixels. The units can display images up to 30 feet diagonally.

The Polaview 105 uses three monochrome LCD panels and a 400-watt bulb to output 24-bit images measuring up to 30 feet diagonally.

The Polaview 105, priced at $9,495, supports 24-bit color; features a motorized, auto-focus zoom lens; and uses a 400-watt metal-halide lamp to output 300 lumens. The Polaview 95, priced at $8,995, does not show 24-bit color but outputs 500 lumens using the same metal-halide lamp. The $7,495 Polaview 90 outputs 300 lumens from a 410-watt halogen lamp.

The $6,795 Polaview 80 resembles the 90 but supports only a single computer source; the other three units support one computer and one video source simultaneously.

▶ **Sharp** last week shipped the XG-E650UB Mark II, an LCD-based projector that supports 640-by-480-pixel resolution and outputs 150 lumens.

The $7,295 unit features a retractable zoom and motorized-focus lens. It measures about 8 by 13 by 17 inches, making it easy for users to fit the device beneath an airplane seat, the company said. The XG-E650UB Mark II is powered by a 250-watt metal-halide lamp that can project 24-bit images measuring up to 12.5 feet diagonally forward or to a rear screen. It also comes with a 5-watt speaker and can support computer and video inputs simultaneously.

Electrohome Projection Systems of Kitchener, Ontario, can be reached at (519) 744-7111; fax (519) 749-3136.

Polaroid Corp. of Cambridge, Mass., can be reached at (617) 386-2000 or (800) 816-2611.

Sharp Electronics Corp. of Mahwah, N.J., can be reached at (201) 529-8731; fax (201) 529-9636. □

Trio usher in new CD-ROM drives

By David Morgenstern

Storage vendors extended CD-ROM playback options this month with a full platter of drives and autoloaders.

▶ **Panasonic Communications & Systems Co.** last week released its LK-MC604S, a new quadruple-speed CD-ROM drive.

According to Panasonic, the $499 SCSI drive sports an MTBF (mean time between failure) of 125,000 hours, making it about 25 percent more reliable than competing units. The new mechanism also uses a loader tray that holds a disc in place even when the drive sits vertically on the desktop.

The drive supports Mac Hierarchical File System, CD-ROM XA, multisession Photo CD, Digital Audio, Video CD and CD-I formats.

▶ **Smart and Friendly** this month unveiled its CDJ 7004, a low-cost quadruple-speed CD-ROM jukebox.

The $469 caddyless unit is based on a Nakamichi mechanism that holds up to seven discs. It has an average swap time of 2.5 seconds, the company said. The drive supports HFS, audio, CD-ROM XA and Photo CD formats, including multisession standards.

▶ **DynaTek Automation Systems Inc.** recently shipped its CDS656, a new sextuple-speed CD-ROM drive based on a Plextor mechanism.

DynaTek said the $699 drive features an average access time of 115 milliseconds. It supports multisession HFS, CD-ROM XA, CD-DA, Photo CD, CD-I and Video CD formats.

Panasonic Communications & Systems Co. of Secaucus, N.J., can be reached at (201) 348-7000 or (800) 742-8086.

Smart and Friendly, a division of High Technology Distributing Inc. of Van Nuys, Calif., can be reached at (818) 994-8001 or (800) 366-6001; fax (818) 988-6581.

DynaTek Automation Systems Inc. of Bedford, Nova Scotia, can be reached at (416) 636-3000 or (800) 461-8855; fax (416) 636-3011; info@raider.dynatek.ca. □

For the record

The July 17 story on Hewlett-Packard Co.'s HP DeskJet 1600CM (Page 6) incorrectly stated the cost per page for the printer. HP said users can expect an average cost per page of 4.2 cents for a newsletter and 16 cents for a graphics-heavy page.

Contrary to a story in the June 26 issue (Page 6), Matsushita Electric Industrial Co. manufactures the tubes inside new monitors from Panasonic Communications & Systems Co. and ViewSonic Corp.

BLUE BUILDING BLOCKS

BLUE STORM — Performance Drive

BLUE LIGHTNING — SCSI Accelerators

BLUE SPARK — Accelerated Storage

BLUE STREAK — RAID 0 and 1

BLUE STREAM — DAT Tape Back-Up

INTRODUCING THE BLUE LINE

The BLUE Line is an advanced storage architecture that goes beyond the current paradigm for storage design. Each component is engineered for the rigors of a graphics or digital video production environment. Attention is given to every detail that maximizes SCSI stability and data throughput.

Build with BLUE! Protection investment is the cornerstone of our offering. BLUE can begin with a single drive and evolve into a complete system of fixed, removable, and DAT tape devices. To increase your productivity add our PCI or NuBus accelerators and state-of-the-art RAID 0 and 1 solutions. Thinking about speed? Think about BLUE!

BLUE Line Design Enclosure

It's not just a better box. It's a better idea. Interlocking BLUE Line cases — each with four-inch power jumper — make rock-solid vertical or horizontal stacks a snap to build and to run off a single cord. Side-mount power-supply vents heat away from the drive. User-modifiable, front-mount LCD panel supports Power-Up, SCSI addressing, and Power Up sequencing. Need tech help? The LCD even provides Microtech's support number. All this plus enhanced data channel and subsystem design mean true BLUE Line excellence.

REMOVABLE OPTIONS

BLUE Line fixed drive solutions can also be configured as removable, shuttle-based units mounted on front-removable sleds, providing up to 4GB of Fast/Narrow or Fast/Wide portable storage. Available separate docking stations enable you to transfer gigabytes of data without unplugging a single cable — great for digital video, pre-press, and graphics applications.

Microtech International, Inc. . . .

Presents the Experts in Storage and Memory Seminars at MacWorld Boston — *Daily MacWorld Seminar Schedule:*

11:00 & 2:00 • How to buy storage for Digital Video production — *a guide for the advanced and entry level user.*

11:30 & 2:30 • RAID for the rest of us — *Understanding RAID storage solutions with applications in prepress and publishing.*

Noon: Digital Photography — *the FlashFilm and PC card (PCMCIA) storage connection.*

12:30 & 3:00 • SCSI VOO DOO — *Top ten tips 'n tricks for troubleshooting storage problems.*

1:00 & 3:30 • Everything you need to know about removable storage — *from optical media to PC Card (PCMCIA).*

Mac OS

INGRAM MICRO

SCSI Chain Improvements

SCSI chain mysteries were tough on you. So we got tough on SCSI chain design — the source of most peripheral errors and problems. We got rid of nearly all internal ribbons and peripheral cables and put in circuit boards, jumpers, and jumper packs, cutting cable length by nearly 90% — from 21 feet to 28 inches in a seven-device stack. Then we added Forced-Perfect Termination.

Result: BLUE Line products take the mystery out of SCSI chain management.

BLUE

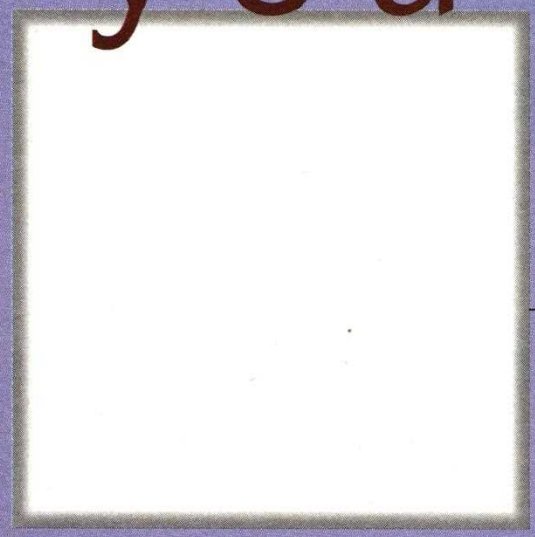
MICROTECH
INTERNATIONAL, INC.

1-203-468-6223 1-800-570-9539

in

here

you



decide

the

future

To learn more about new Microsoft Project, call (800) 315-2254, Dept. DF7 for an information kit with product data and an auto-demo disk.

Outside the 50 United States and Canada, call your local Microsoft subsidiary or (206) 936-8661. Customers can reach Microsoft text telephone (TT/TDD) services by calling (800) 892-5234 in the U.S. or (905) 568-9641 in Canada. © 1995 Microsoft Corporation. All rights reserved. Microsoft is a registered trademark and *Where Do You Want To Go Today?* is a trademark of Microsoft Corporation. Power Mac is a trademark of Apple Computer, Inc.

YOU ARE RUNNING

New Microsoft® Project 4.0

On your Power Mac.™

You have to sort organize manage

People costs resources tasks

You have to line

Your problems up

Before you

Knock them down.

YOU MAKE A PLAN

You start with a list.

The Planning Wizard guides you.

It offers suggestions.

You make connections.

Balance workloads.

Skirt bottlenecks.

So everything will happen

Exactly when it should.

THINGS CHANGE

You compare

Your new plan

To the original.

You ask What if?

You get answers.

You make progress.

SPREAD THE WORD

Show your plan

Show who

What

When

Where

How

Things will get done.

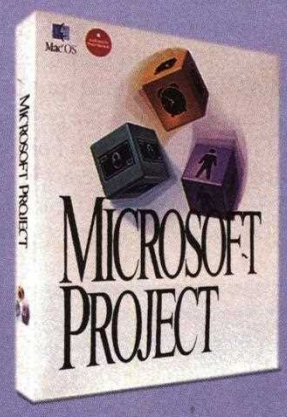
GET GOING

Show how much

Progress has been made

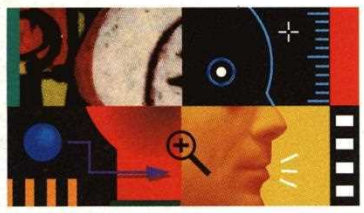
Show everyone

That nothing stands in their way.



Microsoft®

WHERE DO YOU WANT TO GO TODAY?™



GA

ARTISTS' SHOWCASE

Adobe Magazine's Design Contest seeks works created in its applications. See http://www.adobe.com.

PCI PowerShop to ship

Adaptive's board speeds Photoshop up to 1,000 percent

By Carolyn Said

Adaptive Solutions Inc. next week will ship a PCI version of its PowerShop board for accelerating Adobe Photoshop functions.

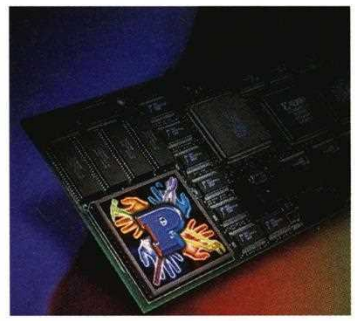
Based on 64 digital signal processor chips working in parallel, PowerShop can speed Photoshop functions up to 1,000 percent, the company said. For example, a Gaussian blur on a 16-Mbyte image runs about 20 percent faster with the card installed, according to Adaptive.

Street pricing for PowerShop starts at about $3,000 for a model with 4 Mbytes of RAM. The PCI board can accommodate up to 64 Mbytes of RAM, while the NuBus card, which shipped in May, can hold 128 Mbytes.

Purchase includes three years of free software upgrades.

Adaptive said it plans by September to extend PowerShop's acceleration to Photoshop plug-ins; JPEG compression; and Photo CD reading, display and creation. The company also plans to adapt PowerShop to accelerate Adobe Premiere and Cinepak compression.

In addition to Photoshop, the card currently can accelerate image acquisition with Eastman Kodak Co.'s Professional DCS 460 and 465 digital cameras.



Adaptive Solutions' PowerShop Photoshop accelerator packs 64 DSP chips onto a single card.

Adaptive Solutions Inc. of Beaverton, Ore., can be contacted at (503) 690-1236 or (800) 482-6277; fax (503) 690-1249. □

binuscan improves color-correction app

By Cate C. Corcoran

Newspaper and magazine publishers who want to automate acquisition and processing of photographs can look to an enhanced version of binuscan Inc.'s color-correction and color-separation software.

binuscan II Professional Toolkit improves upon the company's ColorPro (see MacWEEK, Jan. 23, Page 14) with increased automation and a slew of new image-adjustment tools.

For color or black-and-white images from scans, digital cameras, Photo CD or slide scans, binuscan II takes images from a to-do folder and uses artificial intelligence to perform histogram analyses and do automatic corrections before saving images as TIFF, EPS or JPEG files.

The new version, which accommodates negatives for the first time, corrects images with new tools, including Autogradation, which adjusts problems in gradations, and Autobalance, which chooses a neutral point and changes settings accordingly. A new Autorange tool sets a "superwhite" point and black point that the company said makes the white in images appear brighter than newsprint.

binuscan II, now shipping, is priced at $3,950, including ColorCorrect, which lets users make last-minute changes from within layouts. The package also includes a special binuscan-compatible version of Eastman Kodak Co.'s Photo CD Access Plus acquisition software.

binuscan Inc. of New York is at (212) 681-0600 or (800) 881-2352; fax 212 681-0603. □

FOCUS ON MULTIMEDIA

Grooving with enhanced CDs

By Cate C. Corcoran

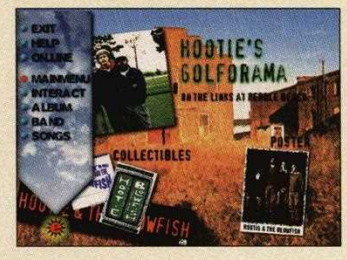
Multimedia is finding its way into record stores via enhanced audio CDs, which contain both standard CD audio and artist-related multimedia content to be played on personal computers.

While developers view this combination as a phenomenal business opportunity, technological and format issues are still in flux. Apple and Macromedia Inc. both plan tool kits for enhanced CDs slated to ship this fall, and Oracle Corp. may get into the act as well. A handful of bands and artists have already released enhanced audio CDs that include interviews, videos, lyrics and sound samples from past albums. Record labels and developers have said they foresee a day when every audio CD will include multimedia content.

Because of its unique position as software that is sold in record stores to both computer users and music fans without computers, the multimedia portion of enhanced CDs has its own development issues (see story, next page).

Nettwerk Productions' Sarah McLachlan enhanced CD includes video clips, band interviews and biographies.

Brilliant Media used Oracle Media Objects to produce an enhanced CD prototype featuring Hootie and the Blowfish.



Rich Shupe, a multimedia developer at Fischer Multimedia Arts in New York, said he thinks developers of enhanced CDs will demand and exploit emerging compression technologies because each minute of Red Book, or standard, audio takes up about 10 Mbytes of a CD's 640 Mbytes.

The dearth of disc space forces developers who want to maximize multimedia quality and content to make difficult decisions. "Sound quality is of the utmost importance because you are developing from an audio standpoint," Shupe said. But Lane Dunlop, director of new media at Nettwerk Productions Ltd., an independent Vancouver, British Columbia, record label that has released four enhanced audio CDs, said that Nettwerk decided to use sub-CD-quality eight-bit, 22-kHz sound so they could shoehorn more video and graphics into the available space.

Anticipating a growing community of enhanced audio CD developers, both Apple and

See Focus On, next page

Vellum upgrade halves price

By Cate C. Corcoran

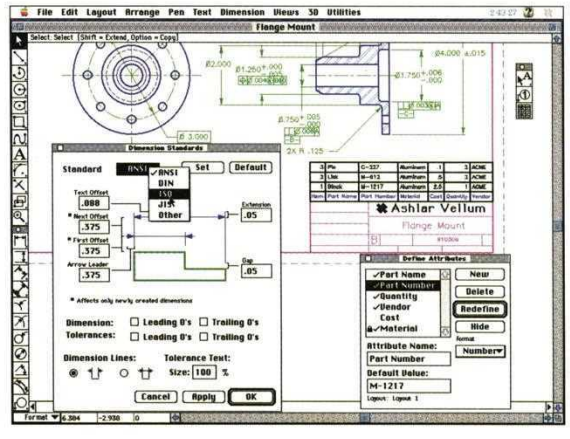
An incremental upgrade to Ashlar Inc.'s Vellum 3D CAD application that includes materials tracking, customization capabilities and scaling improvements brings the program up to speed with its Windows counterpart while cutting its price in half.

Now $1,495, down from $2,995, Vellum 3D 2.7 integrates the company's Bill of Materials Extraction software (see MacWEEK, April 10, Page 14). The software lets users assign names and numbers to parts or objects and save the label information. At the end of a project, Vellum creates a bill of materials that can be exported as ASCII text for use in spreadsheets.

Also new to Vellum 3D 2.7 is support for DXF (Drawing Interchange File) 12, which makes Vellum compatible with AutoCAD 12.

The upgrade will give users more control over dimension marks, letting them choose from ANSI, ISO (European), DIN

See Ashlar, next page



The Dimensions Editor in Ashlar's Vellum 3D 2.7 offers users a choice of standards and offset sizes for dimension marks.

FOCUS ON

From previous page

Macromedia are planning tool kits.

Apple's QuickTime Music Toolkit, slated to ship by fall at an unspecified price, will include the QuickTime Munging Tool, which will let developers combine lyrics, song credits, song titles and other standard data elements into a new extension of the QuickTime video format called a QuickTime Audio CD file. Apple said this format guarantees compatibility both with future versions of QuickTime and with forthcoming audio CD players that will be able to display such information as song titles and lyrics.

San Francisco-based Macromedia is teaming up with San Rafael, Calif.-based ION, an interactive music company, to create a tool kit aiding Director users in controlling CD-ROM drives, synchronizing lyrics with CD audio and organizing resources on discs.

Brilliant Media Inc. of San Francisco is currently in discussion with Oracle about selling Brilliant's set of enhanced-CD development tools for Oracle Media Objects, Oracle's authoring software.

There are artistic as well as technical issues in creating enhanced CDs. Greg Deocampo, president of AVX Design Inc. in Providence, R.I., creators of an enhanced CD for recording artists EBN (Emergency Broadcast Network), said: "I hope that music industry people don't just get caught up in a set format, popping a bio in place, putting lyrics in there. I hope music labels will support a creative relationship between recording artists and multimedia developers." □

For more on enhanced CDs, see the ZiffNet/Mac on-line version of this story at http://www.zdnet.com/~macweek/.

Musical standards

Innovations in enhanced CD storage formats aim to make using an enhanced CD on an audio CD player a transparent experience.

Most enhanced CDs currently place multimedia data onto the first track of the audio CD, so listeners have to advance past the first track or risk hearing screeching sounds or silence as computer data is read by the audio CD player. "Track one" multimedia presentations can't access Red Book audio.

In response, a Sydney, Australia, company called ActiveAudio Pty. Ltd. licenses its TrackZero format, in which data is put on a "pre-gap" hidden track that isn't played by an audio player unless the listener backs into the track with the track selection controls. TrackZero CDs have the advantage of being able to access Red Book audio. Both track one and TrackZero are widely compatible with installed CD-ROM drives.

An emerging standard outlined last month by Sony Corp. and Philips Electronics N.V. makes data tracks invisible to audio CD players. The new Blue Book stamped-multisession specification lets developers access Red Book audio tracks from within multimedia but won't be usable until drive companies release compatible driver software. Apple last month shipped a stamped-multisession driver for all of its CD-ROM drives. — *By Cate C. Corcoran*

Ashlar

From previous page

(German) and JIS (Japanese) standards, as well as create custom templates. Users can set tolerances; witness-line and arrowhead appearance; and text color, font and size.

New Line Pattern and Pen Weight Editors give users greater control over the look of their drawings. Improvements to Vellum's layers function let users group layers to be shown or hidden.

When drawings are rescaled with Version 2.7, text automatically scales and positions itself correctly for the new proportions.

Upgrades to Vellum 3D 2.7 are free for users who bought Vellum 3D 2.5 after June 1. Registered users of Vellum 3D can upgrade for $195. Users of Vellum 2D can upgrade for $295.

Ashlar Inc. of Sunnyvale, Calif., can be reached at (408) 746-1800 or (800) 877-2745; fax (408) 746-0749. □

MAC BOOSTER
PCI SCSI RAID CONTROLLERS AND ADAPTERS FROM
DPT
Designed for Macintosh computers with PCI
At DPT, we've always been real fans of the innovative Macintosh® products from Apple®. Now, we're pleased to announce that after being a Mac booster from afar, we are now ready to ***directly*** boost the performance of the new line of Macintosh computers with PCI.
SmartRAID Controllers
For the fastest RAID-ready performance, SmartRAID is the right choice. These standard and Wide-SCSI controllers come with caching and support for hardware-based RAID 0, 1 and 5 already built-in. They provide the fastest on-board processors to handle demanding workloads with ease.
Upgradable SmartCache SCSI Host Adapters
DPT provides the only SCSI Host Adapter that gives a logical upgrade path for adding more power and features as your needs change. Start with the powerful standard or Wide-SCSI adapter. Then, if you need faster performance, simply add the optional caching module and up to 64MB of hardware-based cache memory. Snap on the optional RAID module to turn your SCSI Adapter into a powerful RAID controller. Nothing could be simpler – or faster.
A Big Boost for You
To introduce you to the DPT product family, we've got a great deal designed to boost your margins. For every two SmartRAID controllers for Macintosh computers you buy from your favorite distributor, get a free SmartCache PCI SCSI host adapter direct from DPT. Call us today for more details and your free Mac Booster Reseller Kit.
DPT
Distributed Processing Technology
1-800-322-4378
140 Candace Drive, • Maitland, FL 32751
BUY AMERICAN
"DPT" and the "DPT logo" are registered trademarks of Distributed Processing Technology Corporation. All other trademarks are the property of their respective holders. Offer expires August 31, 1995.

NO. 1 DB SELLER

Claris Corp.'s FileMaker Pro claimed 48 percent of Mac database revenues in 1994.

— Dataquest Inc.

Stalker's mail challenge

CommuniGate hunts low end

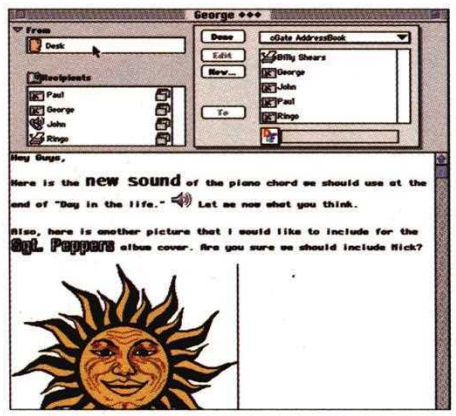
By Nathalie Welch

Stalker Software Inc. last week uploaded CommuniGate, a suite of integrated multi-user messaging tools that are being distributed only on-line.

Using a client-server architecture based on Apple events, CommuniGate has LAN e-mail as its core function. Users can buy modules to add fax functions, voice-mail features, multiline capabilities and a UUCP (Unix to Unix Copy Program) gateway for Internet mail.

Users can download a free five-user version of CommuniGate from various Internet FTP sites or commercial on-line services. The fully functional freebie will not expire; instead, a notice stating an unregistered copy is in use will be added to outgoing faxes and Internet mail, Stalker said.

CommuniGate works with or without PowerTalk installed; if Apple's collaboration client is available, CommuniGate messages are sent using PowerTalk (see MacWEEK, Dec. 12, 1994, Page 3). But for most users, CommuniGate is a low-end mail alternative.


George
Hey Gugo,
Here is the new sound of the piano chord we should use at the end of "Day in the life." Let me now what you think.
Also, here is another picture that I would like to include for the Sgt. Peppers album cover. Are you sure we should include Nick?

Stalker's CommuniGate provides users with an integrated messaging and fax system that has server-based LAN e-mail at its core.

The program's mail features let users attach enclosures, enter formatted text in messages and script routing scenarios across multiple users. Fax-module functions include faxing within applications, automatic cover-page creation, group scheduling, plus automatic redial and resend. The voice-mail module, which supports digital audio and Apple's text-to-speech technology, can be scripted and will let users set up unlimited mailboxes and perform remote message playback.

CommuniGate is $200 for 25 LAN e-mail users or $600 for an unlimited-user license. A print gateway, which routes incoming mail to a local or remote printer, is included at no cost. Additional modules are $100 each. Until Nov. 30, users can buy CommuniGate for half price.

The company expects to ship pager and SMTP (Simple Mail Transfer Protocol) modules in the third quarter; they will be $100 each. Further down the road, Stalker plans to release add-ons for on-line communications and SQL databases.

Stalker Software Inc. of Mill Valley, Calif., is at (415) 383-7164 or (800) 262-4722; fax (415) 383-7461; sales@stalker.com. □

Miramar Systems' MacLAN 5.5 will connect PC users to Mac services, such as AppleShare servers and System 7 file sharing.

MacLAN Connect preps for Win 95

By Stephen Howard

Miramar Systems Inc. is gearing up for Windows 95. The company plans to release in September Version 5.5 of MacLAN Connect, its AppleTalk software for Intel-standard PCs.

The $199 MacLAN Connect 5.0, which shipped in June, gives PC users access to AppleTalk network services, such as System 7 file sharing and laser printers, while giving Mac users a link to a PC's shared folders and local printers.

The upcoming Version 5.5 will have the same features as Version 5.0 but is compatible with Windows 95's networking architecture. The new MacLAN Connect will not take advantage of new features in Windows 95, however.

Miramar said users who buy Version 5.0 after Aug. 1 will get the Windows 95 upgrade free; all others will pay $59 per user until Oct. 31.

Miramar Systems Inc. of Santa Barbara, Calif., can be reached at (805) 966-2432; fax (805) 965-1824; miramar@pacrain.com. □

AGE LOGIC DOES X WINDOW

AGE Logic Inc. is shipping the $259 XoftWare for Mac OS, an X Window System server for Power Macs and 680x0-based machines. It offers automated host log-in and client start-up, built-in window management, and support for X11R6 extensions. The Mac XoftWare resulted from a cross-licensing deal the San Diego-based company signed with Apple last year. Apple's Power Mac MacX upgrade is expected to ship in September (see MacWEEK, Feb. 13, Page 12). Phone (619) 755-1000; fax (619) 755-3998; info@age.com.

FOCUS ON

DATABASES

Developers struggle to adapt

By Clifford Colby

The buzz at this month's 4th Dimension developers conference in San Jose, Calif., focused on ACI US Inc.'s pledge to ship a Windows version of 4D in September, but many sessions were devoted to the more workaday concerns of database developers.

"The demand is for expertise in doing multi-user, client-server applications — with connections to a SQL back-end important," said Walt Nelson, manager of developer services for ACI US of Cupertino, Calif. "With the Windows version of 4D, cross-platform expertise will be at a premium."

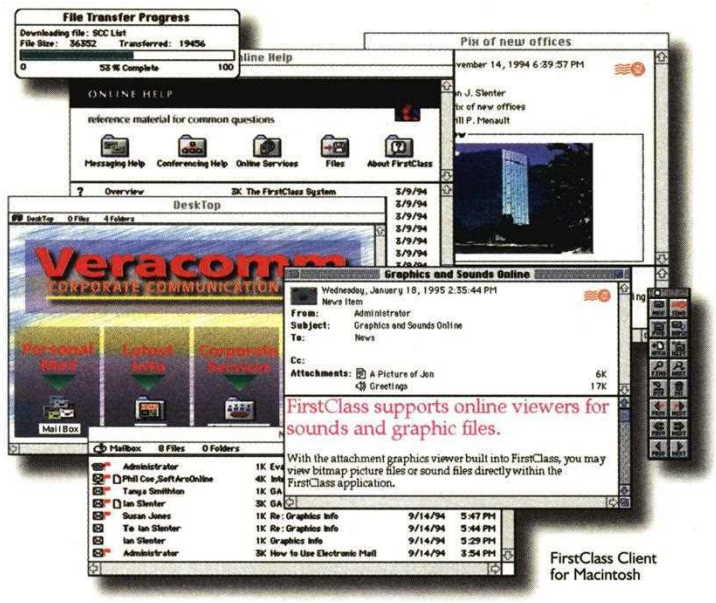
Nelson said developers need to be nimble to keep track of changing demands. "The consultant has to be re-inventing himself," he said. "You have to see what the next step is, what the next layer is. You have to recognize that your customers will change and the tools you use will change."

4D developers, however, are not the only ones who have to be good at adapting. David Beaver, president the Automation Group Inc. in Redwood City, Calif., has seen his consulting and development business evolve since 1988.

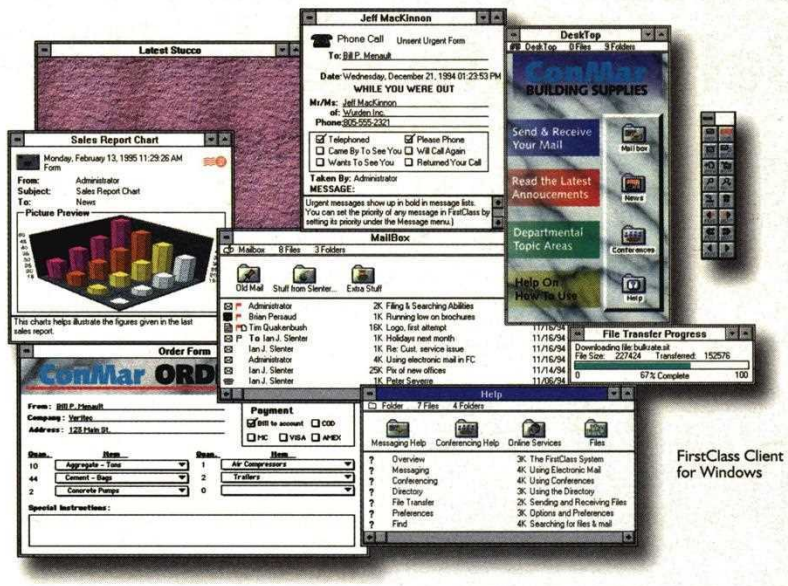
The Automation Group started creating custom applications for companies. "Businesses didn't care what tools were used and didn't want to do it themselves," Beaver said. "They just wanted to write a check and have someone do the work and train the workers."

But, Beaver said, things changed in the past two

See Focus On, Page 14



FirstClass Client for Macintosh



FirstClass Client for Windows

Reliable, Scalable Client/Server Communication. FirstClass Delivers.

FirstClass®

With more than three million users in twelve languages worldwide, SoftArc's FirstClass is the number one e-mail and groupware product for Macintosh-based organizations.

Other electronic mail vendors are languishing or discontinuing their Mac products. SoftArc is aggressively committed to the Macintosh — shipping feature-rich upgrades with the enterprise reliability and functionality sites like yours demand.

FirstClass integrates full fledged electronic mail with built-in workgroup discussion databases. Communicate elegantly with individuals or groups with the world's easiest, cross-platform graphical mail interface.

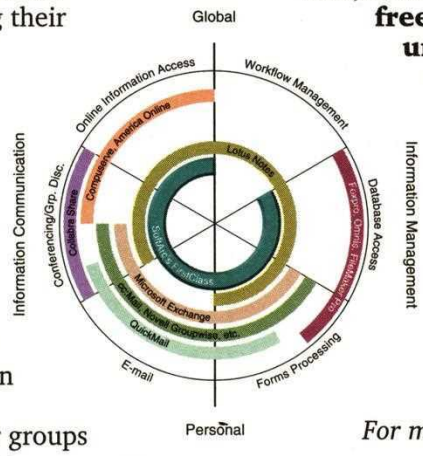
Administer multi-server networks from a single location. Synchronize directories between sites. Add powerful Internet gateways for instant global communication. Offer news feeds or collaborative areas for workgroups. Connect with other mail systems and technologies, including faxes and PDAs.

1995 MacLife Japan Grand Prize
1994 MacUser Best New Communication Product Finalist
1994 Datateknik Sweden Editor's Choice Networking Software
1994 MacUser UK Editor's Choice Networking Software
1993 MacUser Best New Communication Product
1993 BYTE Award of Merit
1993 Macworld Germany E-Mail Product of The Year

FirstClass also offers access to enterprise databases, interface customization and outstanding remote connectivity ... all for the price of traditional e-mail.

Finally, even after three million users sold, SoftArc continues to offer **free technical support** and **unlimited free upgrades** to registered owners of FirstClass.

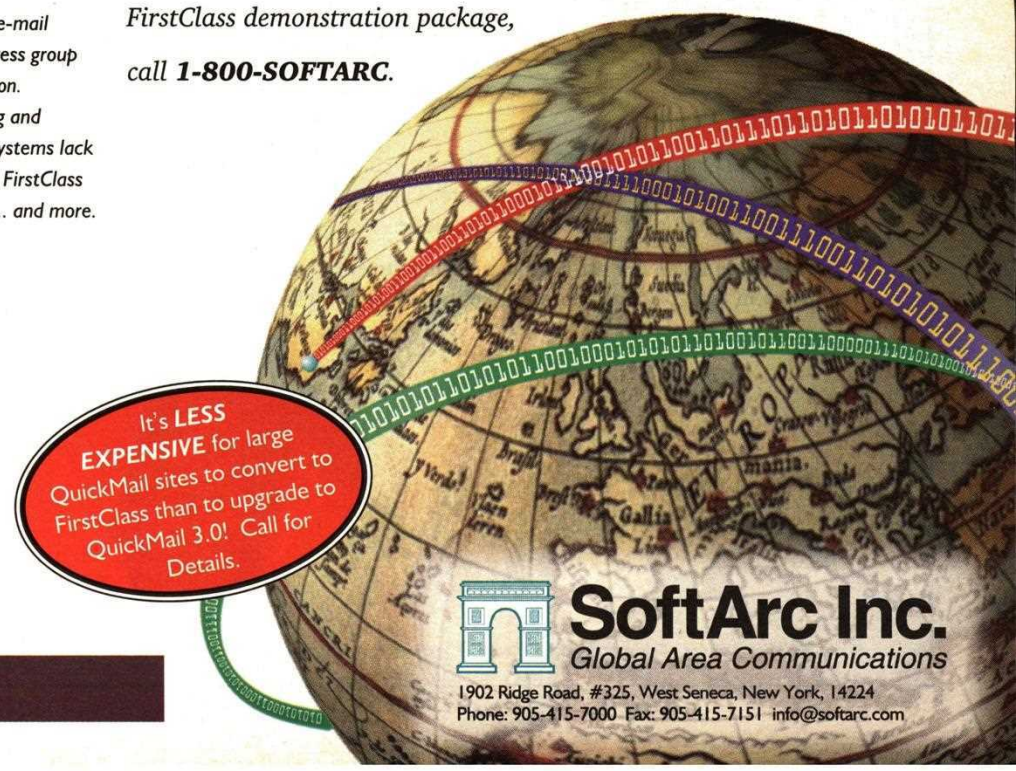
Discover why more and more organizations like yours have chosen FirstClass — the leading Mac-based communication solution.



Traditional e-mail doesn't address group communication. Conferencing and groupware systems lack real e-mail. FirstClass offers both ... and more.

- Advanced e-mail features, including auto-reply, message tracking and receipting
- Mail and conference replication to other FirstClass servers for distributed mail and group communication networks
- Messages with multiple fonts, styles and colors in personal mail and conferences; unlimited file attachments in messages
- Background searching of folders, conferences or whole of system
- Multiplatform support optional — without costly network file servers or routers
- Optional gateways to the Internet with full newsgroup and mail list replication within FirstClass conferences
- Easy remote or local graphical administration with the same FirstClass client all others use
- Support for dozens of modems for remote mail, conference and files access
- Optional command-line access for VT100 text terminal users
- Training available

For more information, or a free FirstClass demonstration package, call ***1-800-SOFTARC.***



SoftArc Inc.
Global Area Communications
1902 Ridge Road, #325, West Seneca, New York, 14224
Phone: 905-415-7000 Fax: 905-415-7151 info@softarc.com

FirstClass and the SoftArc arch are registered trademarks of SoftArc Inc. All rights reserved. QuickMail is a registered trademark of CE Software, Inc. Macintosh is a registered trademark of Apple Computer. Slight restrictions apply to competitive trade-up offer. Call for details.

TeleFinder to speak SMTP

By Nathalie Welch

Spider Island Software Inc. next month will enhance its TeleFinder 3.5 BBS to provide callers with direct access to Internet mail.

The only change in the TeleFinder 3.5 package is Mail Server 2.0. In addition to an SMTP (Simple Mail Transfer Protocol) gateway, the Mail Server upgrade will use MIME (Multipurpose Internet Mail Extension) encoding so users can create mail with file attachments and extended character sets. The upgrade will be free to current owners.

According to Spider Island, Mail Server 2.0 will let administrators provide Internet mail addresses to local users. Previously, the server software handled only TeleFinder's proprietary mail and server-to-server message routing functions.

For customers without a direct Internet connection, Spider Island will provide SMTP links to subscribers of TFNet, its network of TeleFinder BBSes. Administrators can choose to obtain their Internet mail service via TFNet; currently no extra mail charges exist on TFNet, but that is likely to change in the future, according to the company.

TeleFinder BBS 3.5, which includes Mail Server 2.0, starts at $675 for the Mac-based host software, a two-user license, and freely distributable Mac and Windows client software.

Spider Island Software Inc. of Irvine, Calif., is at (714) 453-8095; fax (714) 453-8044; support@spiderisland.com. □

Technical

In technical support, as in all callings, there is the elite. This is it. This top tier team provides expert technical support to Apple's worldwide support infrastructure. The members of this team are highly effective problem solvers who routinely deal with complex and sensitive issues. They are careful to investigate and identify the cause of a problem before proceeding with an effective and efficient resolution.

Senior Support Engineer positions are now open in the following areas:

Mac OS

In-depth knowledge of the Mac OS is essential. Knowledge of multimedia, Newton intelligence, DOS/Windows, or code development on a Mac is a plus. **(Dept. KMMW724A)**

Networking & Communications

Qualified candidate must have experience with networking environments and fault isolation techniques (e.g., serial communications, AppleTalk, TCP/IP, LAN/WAN, router/bridges, packet level analysis). **(Dept. KMMW724B)**

Printing Environments

Qualified candidate must have in-depth experience in printing/networking technologies (such as PostScript, AppleTalk, PCL, QuickDraw, NetWare) within one or more of the following architectures: Mac OS, DOS/Windows, and/or UNIX. **(Dept. KMMW724C)**

Hardware

Experience required with two or more of the following product technologies; printing, video, CPUs, or mass storage. Interfaces with continuation engineering for complex and large scale technical problem resolution. All candidates should have significant experience in troubleshooting hardware to module level. Component level experience is a plus. **(Dept. KMMW724D)**

All positions require that you communicate effectively, both verbally and written, to people at all levels. Additionally you must possess strong interpersonal skills and an ability to manage multiple priorities. Position also requires a BSCS or BSEE degree plus 4-5 years of technical support experience. (Equivalent experience and education will be considered.)

Send your resume to: Apple Computer, Inc., 1 Infinite Loop, MS 75-2CE, (insert appropriate Dept. Code from above, here), Cupertino, CA 95014. Or fax to: (408) 974-5691. Principals only, no phone calls, please.

Apple Computer has a corporate commitment to the principle of diversity. In that spirit, we welcome applications from all individuals.

Apple®

©1995 Apple Computer, Inc. All rights reserved. Apple and the Apple logo are registered trademarks of Apple Computer, Inc.

FOCUS ON

From Page 12

years. "MIS now wants someone who is familiar with its tools of choice to come in and program," he said. "It no longer is looking for someone with analysis skills and project-management skills. It is looking for someone to do programming."

In response, Beaver said, the Automation Group started consulting, "helping people plan information systems and pick technologies."

"We got out [of coding] because we were getting undercut on price and also because it wasn't work we wanted to do," he said.

Dewey Gaedcke, president of Complete Data Solutions Inc. of Austin, Texas, said his company, which uses Blyth Software Inc.'s Omnis to develop applications for Fortune 1000 companies, remains a full-service shop. "The reason people come to us is because they want a total solution, not just parts, such as coding," he said. "Most of our clients want us to do a full job, soup to nuts.

"I think the reason we have done so well is because in the Mac market developers are mainly in small shops. I think there has been a big opportunity. A lot of developers are going after small and medium business, and not a lot are going after the large projects because everyone believes the Mac is not an enterprise machine. But Omnis is robust enough to handle large-scale development."

Brent Dussia, president of Live Oak Systems, a FileMaker Pro development and training firm in San Diego, sees a need for consultants in smaller businesses, too. "What makes me useful is not my Mac knowledge but my business experience," Dussia said. "For small companies, easy databases have put the onus on solving problems and on how to efficiently use business data. The prime directive is: FileMaker Pro is a customer's product, not a developer's tool."

And that, according to Dussia, influences his business. "We are more like a confidante, a family friend, a priest than a consultant," he said. □

MODEM BEAT

Beyond V.34.

Tracking the International Telecommunications Union's efforts to enhance the new V.34 standard, Skokie, Ill.-based U.S. Robotics Inc. this month released a software upgrade to its $595 Courier "V.Everything with V.34" modem that boosts transfer speeds to 33.6 Kbps between like modems. The ITU is expected to approve the speed enhancements to V.34 in March 1996. The free U.S. Robotics upgrade must be loaded into the modem's flash memory from a Intel-standard PC. Phone (708) 982-5010; fax (708) 982-5235.

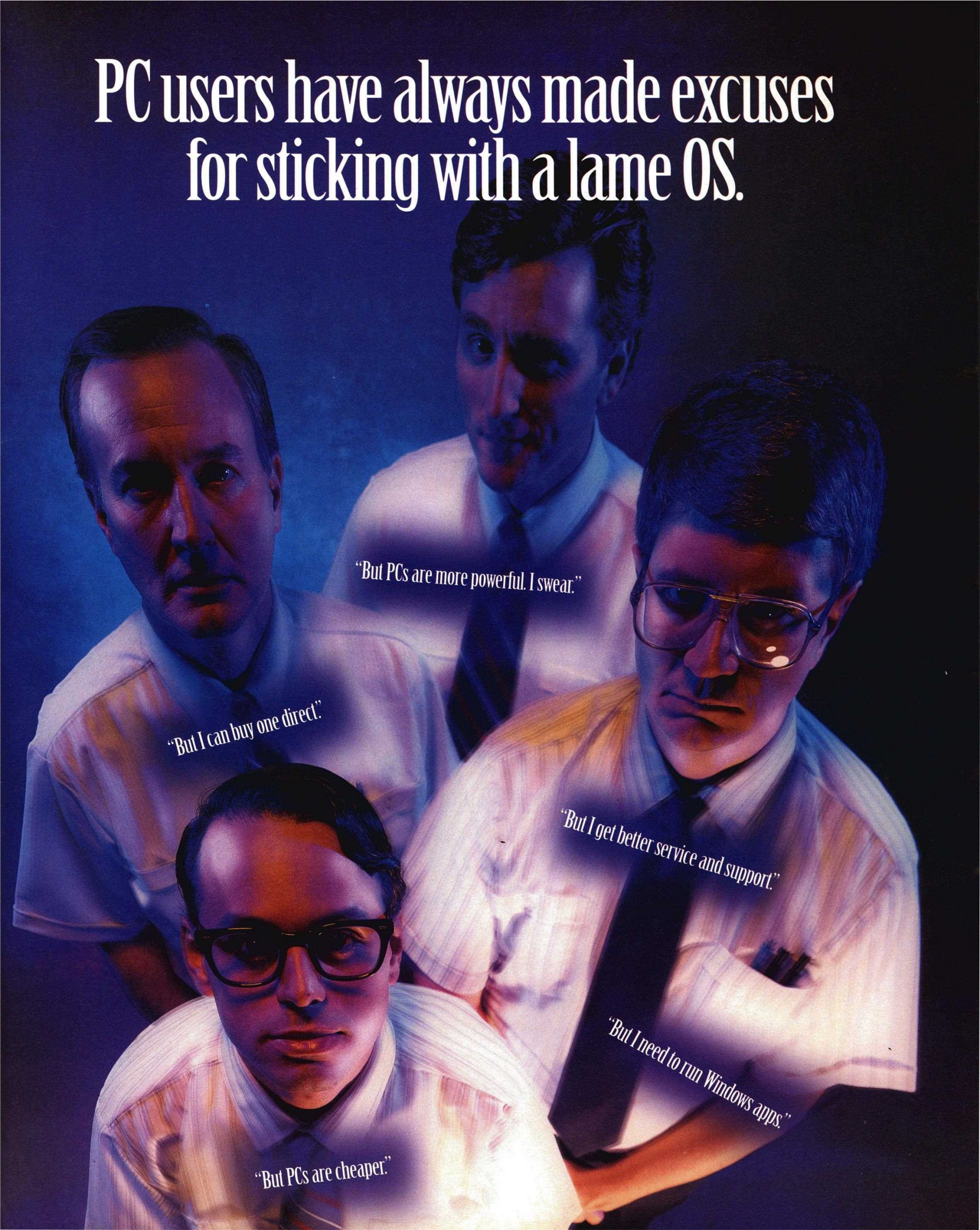
Aiming at new PBs. Next month Salt Lake City-based Megahertz Corp. will ship two Mac versions of its CruiseCard PC fax modem: a $399 V.34 PCMCIA device offering 28.8 Kbps and a $249 version offering 14.4 Kbps. Both will feature XJack extendible RJ-11 telephone connectors. Bundled software will include Delrina Corp.'s FaxLite and Aladdin Systems Inc.'s SITcomm SE data communications package.

In the fall, Megahertz expects to deliver cellular versions of both cards. The cards will gain MNP 10-EC error correction and connections to mobile phones. Pricing has not yet been determined. Phone (801) 320-7000; fax (801) 320-6022.

V.34 and cellular. This week Provo, Utah-based Angia Communications will deliver its SafeJack 28.8C, a $389 PCMCIA device offering direct cellular connections. The device sports the company's detachable SafeJack RJ-11 adapter, which can be replaced with a cable to attach to cellular phones from a variety of vendors. Enhanced Throughput Cellular and AT&T Direct Connect protocols are supported. Phone (801) 371-0488 or (800) 877-9159; fax (801) 373-9847.

— By Nathalie Welch

PC users have always made excuses for sticking with a lame OS.


"But PCs are more powerful. I swear."
"But I can buy one direct."
"But I get better service and support."
"But I need to run Windows apps."
"But PCs are cheaper."

No more

Introducing Mac compatibles from Power Computing. The Mac OS, PowerPC performance and more. For less.

You've never had to make excuses. You knew the Mac OS was better all along. And now, for the very first time, there's a computer that looks, runs and feels just like a Mac,® but goes far beyond it in everything from its feature sets and expandability, to its service and support.

> *"...this computer is designed to warm the heart of any Mac fanatic."*
> —Walter S. Mossberg
> The Wall Street Journal
>
> *"The Power 100 passed our performance and compatibility tests with flying colors. An impressive value."*
> —MacWEEK ♦♦♦♦
>
> *"I'm bullish on Power Computing."*
> —John C. Dvorak
> PC Magazine
>
> *"They might as well have come from Apple–the performance and compatibility are that good."*
> —Macworld

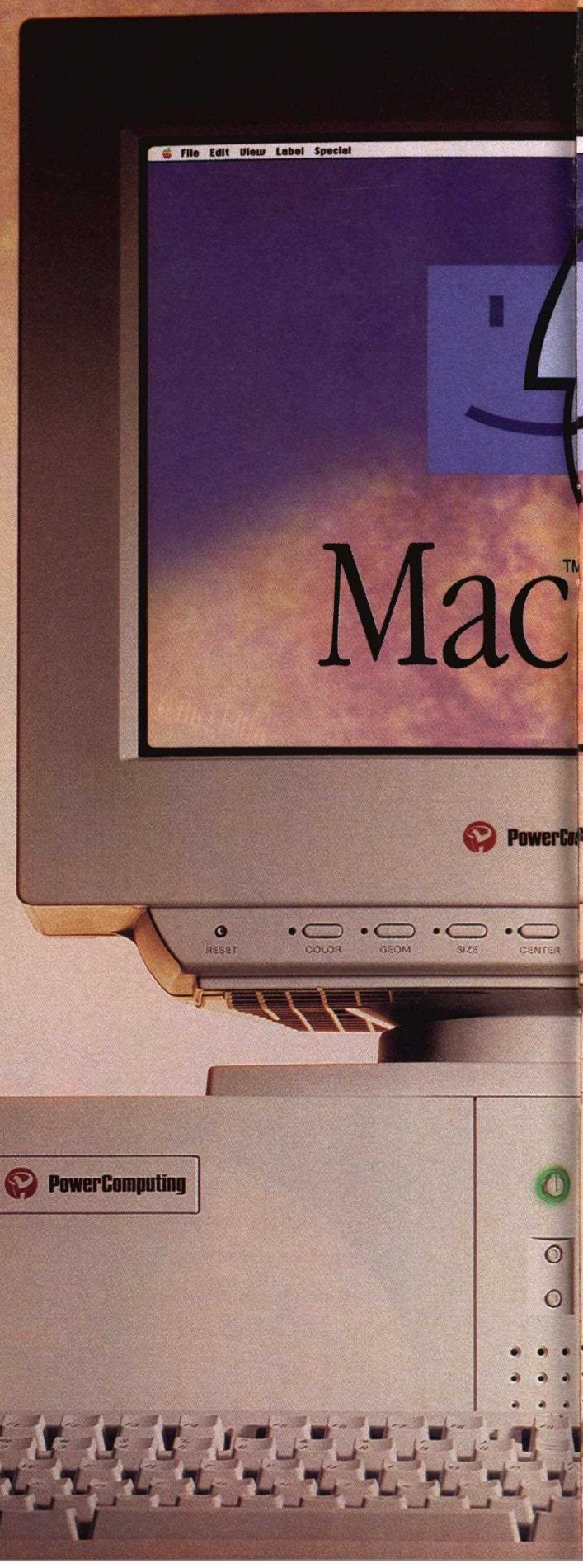
Big savings on the Mac OS.

We're Power Computing. Thanks to our world-class team of experienced Macintosh® engineers, we're unveiling the first Mac-compatible computers in history, with innovations like an available 4GB hard drive, beefed-up VRAM and optional 4x CD-ROM drive. Not to mention great performance which prompted *Macworld* to PowerPC™ claim, "They might as well be Macs," thanks to the PowerPC 601™ microprocessor built into our machines. Best of all, they're priced 10–30% less than Apple,® extended keyboard included.

Over $900 in free software.

We've also bundled each of our computers with popular software titles like Quicken,® ClarisWorks™ and Now Up-to-Date™ to save you even more money. Over $900, in fact. And, you'll even get a 90-day trial of Insignia SoftWindows.™ (Just what you need to run software written for the klunky old PC.)

Apple, Macintosh and Mac are registered trademarks, and Mac and the Mac OS logo are trademarks of Apple Computer, Inc. All other brand or product names are the property of their respective holders.



excuses.

World-class service & support.

All our machines include one more feature: peace of mind. They're all backed by a 100% guarantee of compatibility, on-line help and documentation, toll-free lifetime tech support—even a 30-day money-back guarantee. For the ultimate in support, ask about our next-day, on-site service.

More features. More flexibility.

All Power Computing models are sold directly to our customers. To get just the machine with just the features you want, just talk to the manufacturer—us.

We maximized this custom-tailored approach with more built-in NuBus™ slots, more choices in RAM and a more versatile motherboard. This enables you to choose precisely the configuration that fits you best. As well as one that's more easily expandable down the road.

CPU	PowerPC 601 running at 100MHz, 110MHz or 120MHz
RAM	8MB Upgradeable to 200MB
Hard Drive	730MB–4GB Hard Drives
Video	2MB VRAM Upgradeable to 4MB VGA Monitor Support Built-in
CD-ROM	Quad-Spin (4x) CD-ROM Drive
Accessories	Extd. Keyboard & Mouse Included
Bundled Software	Now Utilities, Now Up-to-Date, Now Contact, FWB HardDisk Toolkit PE, FWB CD-ROM Toolkit, Intuit's Quicken, ClarisWorks, 300 Bitstream Type 1 & Truetype Fonts, eWorld, America Online, Insignia's SoftPC, Insignia's SoftWindows (90-Day Trial)
Support	30-Day Money-Back Guarantee Toll-Free Lifetime Technical Support On-Site Service Available

Buy direct at 1-800-404-7693.

While PC users make excuses, you could be making the move to Macintosh compatibles from Power Computing. To see all the affordability and innovation we bring to the Mac OS, order toll-free. After all, there's no excuse not to.

PowerComputing

1-800-404-7693

12337 Technology Blvd., Austin, TX 78727-6104 • 512-258-1350 • Fax: 512-250-3390
Web site: http://www.powercc.com • Internet: info@powercc.com

BUSINESS

GLOBAL PC SALES

Apple shipped 1.04 million PCs in 1995's first quarter; No. 1 Compaq shipped 1.25 million.

— International Data Corp.

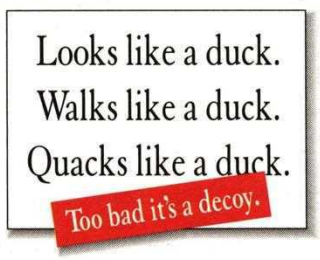
Apple goes on attack

New advertising plan to take swipe at Windows 95

By Andrew Gore

"In your face" and "go for the throat" are phrases not normally associated with Apple advertising. But that may change with the Windows Truth Campaign.

In response to complaints about Apple's passive stance toward Windows 95, the company this week will set in motion a three-tiered print campaign to debunk the claim that the Mac will be redundant once Microsoft Corp.'s new operating system arrives.



The third in a series of Apple ads calls Microsoft's Windows 95 a pale imitation of the Mac OS.

"There has been this Windows 95 steamroller coming at us," said Alan Olivo, Apple's director of worldwide advertising. "And people have been saying, 'What are you going to do?' "

What Apple is going to do is mount an ad blitz that will debut in Mac publications, followed by ads in magazines for Intel-standard PCs and general business. Broadcast media is not part of the campaign.

"I can't outspend Windows, but I need to say something and I need to say it to specific people," Olivo said. "The whole campaign is designed to provide a surgical strike on [Windows 95], plus deliver a positive message about what makes the Mac great."

Microsoft and its third-party developers and dealers reportedly are spending $400 million to promote Windows 95.

For the Mac installed base, the campaign will feature four ads running sequentially in the same issue of a magazine. The first three ads pick apart Windows features. For example, "Introducing Windows 95. It lets you use more than eight characters to name your files. Imagine that."

The fourth ad will continue the theme with a list of features new to Windows 95 that the Mac already has.

"Microsoft is asking, 'Where do you want to go today?' We ask, 'Where do you want to go tomorrow?' " Olivo said, commenting on the ads targeted at Windows users that start a few weeks after the Mac ads. The PC ads will stress next-generation Mac technologies such as ease-of-use enhancements and multimedia, he said.

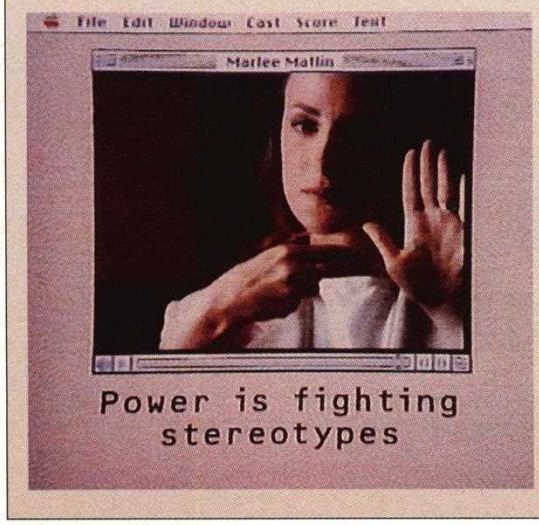
"Looks like a duck. Walks like a duck. Quacks like a duck. Too bad it's a decoy," will be the theme of ads for business publications, suggesting that if it looks like a Mac and acts like a Mac, maybe what business buyers really want is a Mac, Olivo said.

"It's good to see Apple taking a poke at Microsoft," said Bradley Johnson, technology writer for Advertising Age magazine in Los Angeles. "Apple has periodically, but not often enough, taken jabs at Windows."

According to Johnson, it is important for Apple to deliver a strong anti-Windows 95 message to its installed base. However, he was more dubious about PC users. "Windows users are primed to be converted, but converted to Windows 95," Johnson said.

Olivo admitted his job is not easy. "Let's face it, we're not going to stop the Windows juggernaut," he said. "But we want to reassure Mac users that they made the right decision with Apple Macintosh. We're not about to let ourselves be marginalized." □

POWER MAC PITCH



Oscar-winning actress Marlee Matlin became the latest celebrity to hawk Power Macs in an ad that debuted last week on the Comedy Central and MTV networks. The spots are aimed at the higher-education market.

High-tech vendors post positive results

By Jon Swartz

With few exceptions, the financial results of high-tech developers sprang forward during 1995's spring quarter.

- **Microsoft Corp.** said fiscal 1995 revenues ballooned 28 percent, to $5.94 billion from $4.65 billion in fiscal 1994. The Redmond, Wash. company announced record profits of $1.45 billion, up 26 percent from $1.15 billion a year ago.
- **Intel Corp.** said second-quarter sales grew 40 percent, to a record $3.89 billion from $2.77 billion in the same quarter last year. Profits for the Santa Clara, Calif.-based chip maker improved 37 percent, to $879 million from $640 million last year.
- **Radius Inc.** of Sunnyvale, Calif., lost $3.1 million on flat third-quarter sales of $87.3 million. The systems and peripherals company turned a cool $1 million profit in the same quarter a year ago.
- **Macromedia Inc.'s** profits for its first quarter leapt 340 percent, to $4.4 million from $1 million in the same quarter a year ago. Profits for the San Francisco-based developer more than doubled, to $22.3 million from $10.3 million last year.

See Results, Page 20

The quarter's winners

Top three in sales growth	% CHANGE
1 Macromedia Inc.	340
2 Alantec Corp.	128
3 Global Village Communication Inc.	80

Top three in profit growth	% CHANGE
1 Symantec Corp.	1,070
2 Alantec Corp.	242
3 Macromedia Inc.	117

NEWS ANALYSIS

Apple in China: Publish or perish

This is the second of a two-part series on Apple's business in China.

By Steve Hamm

It's a little-known fact: The Chinese were first to invent the printing press. A fellow named Bi Sheng did it about 1,400 years ago.

This may seem like a scrap of useless trivia, but it's emblematic of the importance China grants its publishing industry. And for Apple, China's huge and thriving publishing sector provides the first and best hope for succeeding in one of the world's most promising computer markets.

Numbers tell the story. The Chinese publishing industry employs 3 million people. China boasts 14,000 newspapers. And there are thousands of up-and-coming marketing and advertising companies in Beijing alone.

Most of the companies still use outdated machinery and methods. But that's changing. The government's five-year plan calls for a massive technology upgrade for the entire industry. "The next 10 years will be a revolution," predicted Shen Haixiang, president of the China Research Institute of Printing Science and Technology in Beijing.

If Shen is right, it will be thanks in part to his innovative joint venture with Apple — the Apple Publishing Technology Centre. It provides desktop publishing services and training to all comers in Beijing. And that venture is just one of several creative partnerships Apple has undertaken to help promote China's publishing industry in order to create demand for tens of thousands of its high-end Apple publishing systems. Others include co-development deals with distributors and resellers and a training program at Tsinghua University in Beijing.

Already, Apple's strategy is showing results. More than three-fourths of its sales this year are expected to be to publishing customers. And analysts believe that Apple has a fighting chance of making Macintosh the publishing standard in China — as it is almost everywhere else in the world. "This market could be huge, and

See China, Page 20

DOES COMPUTER CITY SELL MAC™?

iomega

$49.74

Zip 100MB Cartridges 3-Pack
#38-10094

LINKSYS

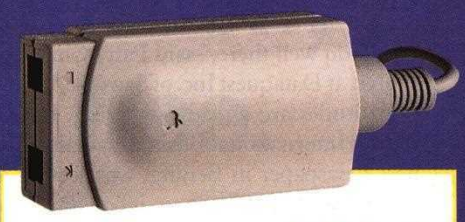
Combo Transceiver 10 Base-T & Coax **$46.99**
#22-10309

SyQuest

Data Cartridges

44MB #19-10122 ..... **$44.99**

88MB #19-10125 ..... **$49.96**



Authorized Reseller

$129.53

Geoport Adapter For PowerMac™
#31-10413

BELKIN COMPONENTS

10 Base-T AAUI Ethernet Transceiver **$39.99**
#10-10341

Quicknet Local Talk 3-Pack **$29.99**
#10-10338

AAUI Coax Ethernet Transceiver #39-10059 ..... **$39.99**

Quicknet LocalTalk Adapter #10-10146 ..... **$9.99**

Interex®
Computer Products

Interex SCSI Diagnostic Terminator **$39.99**
- Automatically monitors critical signal lines
- Corrects cable impedance mismatch

#19-10365

Telenet DIN-8 Phonenet Adapter
- AppleTalk® and Phonenet compatible
- Filters noise and increases data integrity & transmission speed

$9.99
#22-10277

LACIE LIMITED

Quantum QUALITY STORAGE

$199.99

540MB Quantum Internal SCSI Hard Drive
- 12ms average access time
- Includes installation instructions

#19-10232

INSTALLATION INCLUDED! WITH PURCHASE

$229.99

Supra Fax External Fax Modem 28.8, V.34
#31-10387

NU DESIGN

$599.63

2 Gig External Tape Drive For Macintosh®
- Large capacity
- Up to 30MB/min backup speed
- Includes tapes, cables & software

#41-10120

RASTEROPS

$649.99

Paintboard Prism Nubus
- 24-bit color on up to 21" monitors
- Quick draw acceleration
- Compatible with all PowerMac™ & Quadras® with a NuBus slot

#15-10277

WE CARRY MORE THAN 1,000 IN-STOCK ITEMS FOR MACINTOSH® EVERY DAY!

ANY MORE QUESTIONS?

CALL 1-800-THE-CITY FOR THE STORE NEAREST YOU

OVER 70 LOCATIONS NATIONWIDE

Prices good July 31 through August 13, 1995. Prices good in the United States only. Although we want our advertisements to be accurate, mistakes occasionally happen. If you have any questions, please see our store manager. If for any reason an advertised item is out of stock, we will offer you a raincheck or, if you desire, a comparable item if available. (Advertised close-outs, special purchase and limited quantity items are excluded). AppleTalk, PowerMac, Macintosh, Quadra, LocalTalk, Apple and the Apple logo are registered trademarks of Apple Computer, Inc. Not all products available in all stores.

Authorized Reseller

COMPUTER City SUPERCENTER

YOU CAN'T MAKE A WRONG DECISION WHEN YOU GO TO THE RIGHT STORE.SM

China

From Page 18

they'll do well there," said Patty Chang, an analyst at Dataquest Inc. of San Jose, Calif.

Attitudes are already changing. For instance, International Business, a daily business newspaper in Beijing, was seen as an ice-in-the-veins rebel when it bought a Mac-based publishing system a couple of years ago. "Nowadays we have a lot of followers," said Chi Yao, the company's MIS director.

Many Chinese get their first look at a Macintosh at the Apple Publishing Technology Centre, which owns more than 40 Macs contributed by Apple. The center opened last November and already has 50 major clients — some of which send employees to watch and learn when the work is being done. The center also runs day and evening training programs for professionals and college students.

The research institute's Shen has become something of a Mac evangelist. "People come, they see the computers, and maybe they buy Apple," he said. Shen is now expanding his (and Apple's) horizons. This year he plans an advertising conference and an exposition for the entire publishing industry. He expects as many as 40,000 people to show up at the latter.

The Huaguang Electronics Group of Beijing is certain to be among the participants. Apple counts on this value-added reseller to carry its technology into publishing circles. Huaguang has a massive sales network spanning 28 cities. It's no wonder the company claims a 43 percent share of the publishing market and 38 percent of the advertising-design business.

Until Huaguang started selling Mac-based proprietary publishing software in May it had been a DOS-only developer. But Apple helped nudge Huaguang into the Mac sphere with a contribution of $400,000 in computer equipment. There are no regrets on the Chinese side. Dong Yin, general manager of the company's publishing systems subsidiary, said, "80 percent of our new business is on the Mac."

There's plenty more for Apple to do, though. Some key shrink-wrapped software applications are already available — Adobe PageMaker and Macromedia FreeHand, for instance. But "we need more software," said Joseph Hon, executive director of the Apple Publishing Technology Centre. The Chinese also need more publishing centers like Hon's.

And Apple seems happy to oblige. It promises to open a second center in Shanghai by the end of the year. But in a country as vast as China, there's still a lot of foundation building to be done. □

FOR PEOPLE WHO TAKE THEIR NETWORKING PRETTY SERIOUSLY.

Sure, some of you are more hard core than others. But whether you're linking a dozen desktops or hundreds of offices worldwide, there's only one event for you: NetWorld℠+Interop® Atlanta. As the world's leading interoperability expo, we'll have over 500 top LAN, WAN and telecommunications vendors on hand. Each will be showing off the latest in high-speed networking, Internet access, client-server and more. Better yet, you can see and test all the latest solutions on our live, multivendor, multiprotocol network—the InteropNet™. No matter how you look at it, there's simply no better way to evaluate new technologies for your business than NetWorld+Interop. So order your free pass today. We guarantee it'll leave a lasting impression.

NETWORLD+INTEROP 95

FREE VIP PASS • ATLANTA, GA • SEPTEMBER 27-29 • GEORGIA WORLD CONGRESS CENTER

Name_____ Company_____

Address_____ City, State, Zip_____

Phone/Fax_____ Fax: 415-525-0199 • Mail: N+I 95, P.O. Box 5855, San Mateo, CA 94402-0856

GET CONFERENCE INFORMATION VIA THE WEB AT http://www.sbexpos.com • QUESTIONS? CALL 800-488-2883

A510

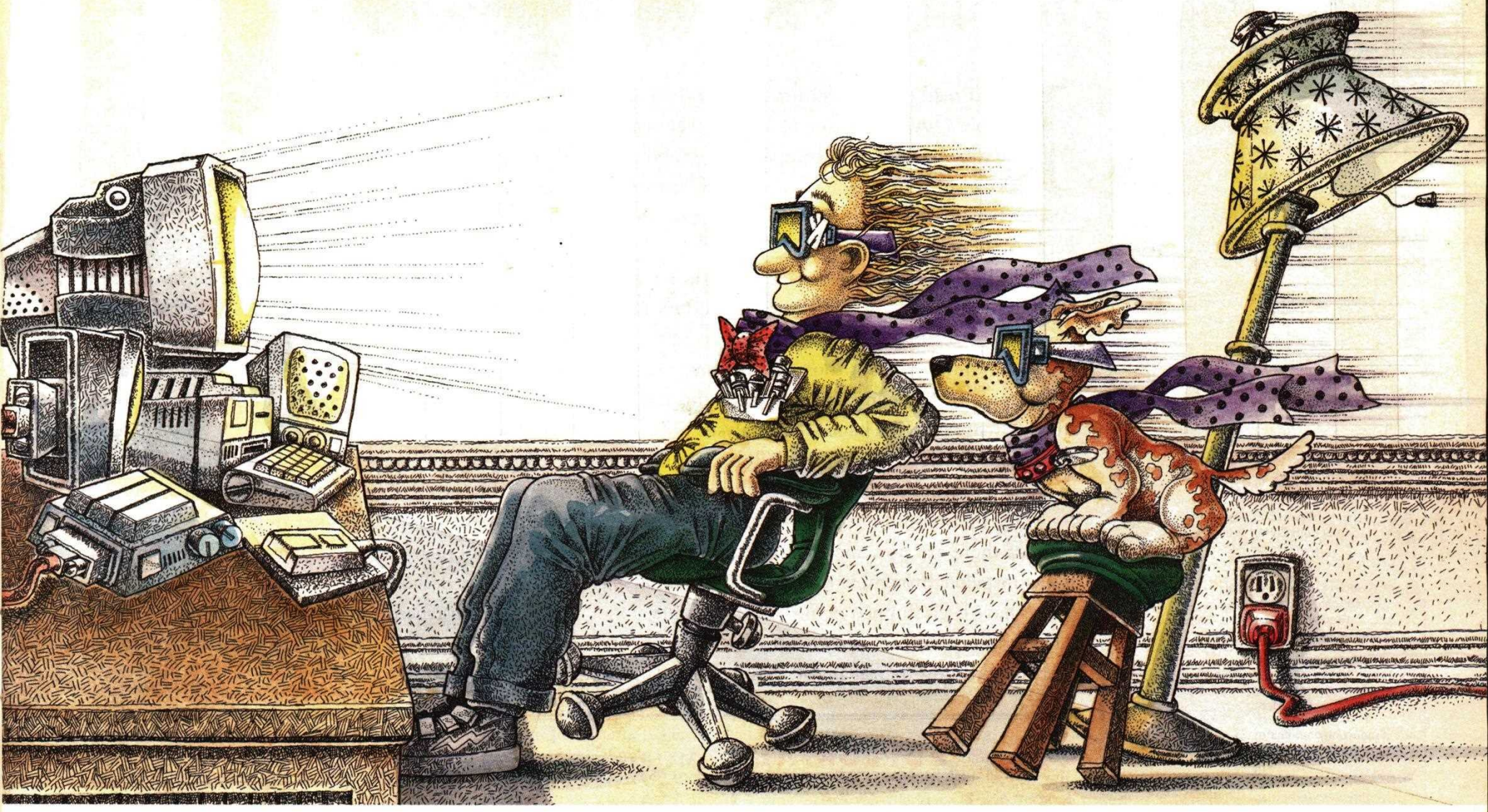
The conference program runs September 25-29. Outside the U.S. call 415-578-6900. © 1995 SOFTBANK Exposition and Conference Company (SOFTBANK Expos).
Interop is a registered trademark of SOFTBANK Expos. NetWorld is a service mark of Novell Inc. All other names are the property of their respective holders.

Results

From Page 18

- **Symantec Corp.** of Cupertino, Calif., announced first-quarter sales of $90.1 million, an 8 percent increase from $83.1 million in the same quarter last year. Profits for the three-month period grew elevenfold, to $11.7 million from $1 million a year ago.
- **Caere Corp.** registered lower sales but higher profits for its second quarter. The Los Gatos, Calif.-based developer had sales of $13.2 million, down 2 percent from $13.5 million in the same quarter last year; profits were $756,000, up 22 percent from $618,000 a year ago.
- **Seagate Technology Inc.** of Scotts Valley, Calif., posted fiscal 1995 sales of $4.54 billion, up 30 percent from $3.5 billion in fiscal 1994. Profits, meanwhile, were $260.1 million, a 16 percent increase from $225.1 million a year earlier.
- **Conner Peripherals Inc.** of San Jose, Calif., reported a 1 percent dip in sales, to $642.3 million from $650.1 million, and a 42 percent decline in profits, to $18.4 million from $31.5 million, for its second quarter.
- **Maxtor Corp.,** also of San Jose, announced a 14 percent rise in sales, to $315.9 million, and a loss of $13.8 million for its first quarter. In the same quarter a year ago, the disk drive company posted sales of $275.9 million and profits of $1.1 million.
- **Global Village Communication Inc.** racked up $27.6 million in first-quarter sales, up 80 percent from $15.3 million a year ago. The Sunnyvale-based networking company said profits swelled 53 percent, to $2.3 million from $1.5 million last year.
- **Alantec Corp.,** a San Jose-based networking vendor, earned record second-quarter results. Sales soared 128 percent, to $12.3 million from $5.4 million in the same quarter last year; profits escalated 242 percent, to $2.5 million from $730,000. □

Buy one of our *Fast*!SCSI PCI adapters for your Power Macintosh, and get a facelift absolutely free.



The new PCI-based Power Macintosh™ systems are pretty zippy. But if you're running applications like desktop video and high-end imaging, they may not be zippy enough. Because they may not have enough throughput.

So we developed a whole new family of *Fast*!SCSI™ adapter cards just for the PCI-based Power Macintosh. From Fast SCSI-3 (10 MB/sec) to Fast and Wide SCSI-3 (20 MB/sec). Each with an incredibly high data rate. There's even a card designed specifically for longer I/O cables.

They also feature bus mastering and easy plug-and-play installation. And a 5-year warranty, and toll-free technical support. They even come bundled with the Anubis™ software utility for formatting removable drives.

And if you're worried about compatibility, you shouldn't be. Because we also designed the heart of the SCSI chip that's already built into your Power Macintosh. And our cards support System 7.5 and SCSI Manager 4.3.

Which makes a pretty impressive package when you add it all up. (And come to think of it, that may be why we've already shipped over 23 million SCSI solutions.)

So if you'd like to get even more performance out of your Power Macintosh, or just smooth out some of those tired lines, contact QLogic at 1-800-TOP-SCSI (867-7274) or sales@qlc.com.

qlogic™

© 1995 QLogic Corporation. All brand names are trademarks or registered trademarks of their respective owners.

MacWEEK

Editor in Chief Mark Hall
Editor Rick LePage
Managing Editor Brenda Benner
Art Director Eleanor Leishman

NEWS
Executive Editor/News Andrew Gore
Senior News Editors Carolyn Said (GA), Stephen Howard (Gateways), Jon Swartz (Business)
Associate News Editor Matthew Rothenberg
Senior Writers Robert Hess, David Morgenstern, James Staten, Nathalie Welch
Staff Writers Clifford Colby, Cate C.Corcoran

FEATURES
Executive Editor/Features Anita Malnig
Senior Features Editor Catherine LaCroix
Assistant Editor Maria Sample

REVIEWS
Senior Reviews Editor Missy Roback
Associate Reviews Editor Jeff Green
Editor at Large Dale Coleman

Editor Emeritus Henry Norr

Contributing Editors Don Crabb, Ric Ford, Bruce Fraser, Connie Guglielmo, Steve Hannaford, Jonathan Oski, Steve Rosenthal

Assistant to EIC Anna Marie Pises

COPY DESK
Assistant Managing Editor Mariann Hansen
Copy Chief Marty Cortinas
Senior Copy Editor Patricia Orsini
Copy Editor Rebecca Gulick

ART AND DESIGN
Associate Art Director Margaret Lee
Graphics Associate Nevin Berger
Graphic Designer John Farnsworth II

PRODUCTION
Managing Director/ Production and Technology Barri Klingaman
Production Manager Steve Spingola
Assistant Production Manager Joy E. Krinsky
Production Coordinator Jose Urrutia
Pre-press Manager Tim Manousos
Assistant Pre-press Manager Tamara Gargus
Pre-press Technician Michele Kellogg

Group Publisher Chris Dobbrow

Group Business Director Bret A. Violette
Group Business Manager Mary E. Colbert
Group Marketing Director Laurel Clark Skillman
Group Research Director Neil Karlin
Marketing Manager Renee Bula
Sales Development Manager Cheri L. McKeithan
Marketing Coordinator Stephanie Arnold
Group Circulation Director Melinda Kendall
Director, Controlled Circulation Justin Williams
Assistant Circulation Manager Lorraine O'Shea
Circulation Assistant Helen Kearney
Assistant to Group Publisher Lola Tanouye
Advertising Coordinators Elizabeth McGinnis, Jennifer Sawyer
Administrative Assistants Colleen Dasher, Heather McKee, Gina Michelucci, Deborah Monaghan

Editorial office: 301 Howard St., 15th Floor, San Francisco, Calif. 94105. Phone (415) 243-3500; fax (415) 243-3651; macweek@macweek.ziff.com.

Advertising office: 950 Tower Lane, Foster City, Calif. 94404. Phone (415) 378-5600; fax (415) 378-6903.

Subscriptions: Customer Service Department, MacWEEK, c/o JCI, P.O. Box 10634, Riverton, N.J. 08076-0634. Phone (609) 786-8230.

Permissions and Reprints: Requests for permission to quote from an article should be directed to Chantal Tucker, Ziff-Davis Publishing Co., 1 Park Ave., New York, N.Y. 10016; fax (212) 503-5420. For price quotes on reprints, contact Ziff-Davis Reprints at (800) 825-4237.

MacWEEK is an independent journal, not affiliated with Apple Computer Inc. Apple and Macintosh are trademarks of Apple Computer Inc. Entire contents copyright 1995 Ziff-Davis Publishing Co. All rights reserved. Material in this publication may not be reproduced in any form without permission. MacWEEK is a registered trademark of Ziff-Davis Publishing Co.

BPA INTERNATIONAL

Staying power

If you read the dire commentary on-line about Apple's future or listen to Wall Street analysts complain about the company's disappointing financial results, you'd think the Macintosh is destined to join the Osborne 1 and that Apple is on the verge of filing for bankruptcy.

Sure, Apple's recent quarterly results didn't verify the prognostications of Wall Street's guiding lights, and Apple executives were not prone to mutter cautionary comments about those predictions à la Alan Greenspan. So the company is being punished with stock downgrades by a handful of analysts.

But the quarterly ritual of failed forecasting overlooks two profound milestones Apple reached in the previous three months.

First, there are now more than 20 million Macintoshes installed throughout the world. Ten million machines have been shipped in the past three years alone. The number of Macintosh users is growing larger and more quickly now than at any other time. The platform is vibrant today and will resonate far into the future.

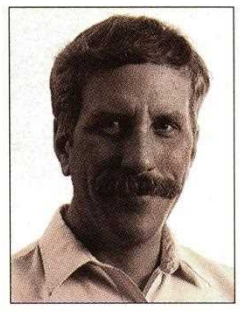
Second, Apple is on track to generate $10 billion in revenue this fiscal year. It is reasonably profitable. It is introducing a slew of new products in the coming weeks that will increase its installed base as well as its top and bottom lines.

We do not pretend to be experts in picking stocks, but we do understand that the Mac is a solid, rapidly growing platform that dominates key markets. And we know that $10 billion companies with 20 million customers do not fold their tents and vanish overnight.

Criticism of Apple and its technology, though often well deserved, is too often overblown. Certainly, the company makes mistakes (lots of them and frequently) but no more or less than other multinational, multibillion-dollar entities. But where it counts — product infrastructure and market influence — Apple has as much staying power as any other corporation in its class. □

GUEST EDITORIAL G. MORGAN WATKINS

With cars and computers, speed can be bad for you



The status symbols of my youth were not measured in bit depth or drive capacity. How cool we were was measured by our cars and what they could do on the road. For better or worse, probably worse, it was a guy thing.

My first car was a 1955 Volkswagen Bug with rust holes in the floorboard and straw-filled seats. It got me to school, work and home, puttering all the way. Exceeding the speed limit was a fantasy that, like most of my adolescent daydreams, would never be fulfilled.

Upgrading

When I got a bit older, I found a 1971 Oldsmobile Delta 88 with a 455 V-8 under the hood. Double-popping the gas pedal, listening to that massive engine drawing in its mighty breath and then feeling it accelerate to "ramming speed" was nirvana.

I remember the day when I took my Olds up to 114 miles per hour. It shook, rattled and threatened to roll. I quickly realized that there is a point where learning to use what you have is a lot more important than racing hell-bent and getting your body smeared across 2,000 feet of asphalt.

The guy part of my brain also loves fast computers. I've been getting pretty excited about the Motorola PowerPC 604 processor. Video conferencing, image rendering and future versions of Doom may be able to capitalize on the increased performance. I just want to sit behind the wheel of a 132-MHz 9500 and burn the tires off ClarisWorks.

Yet, the business part of my brain sees me racing down a lonely stretch of Texas highway, foot glued to the floor, vehicle speeding out of control. Have we learned to use what we already have? These new 604 boxes are being touted for high-end applications, but this chip will move down the product line soon enough.

I work in an environment where I'm responsible for thousands of microcomputers that each cost thousands of dollars. They still function, look nice and provide service, but when they reach the age of 3 everyone seems ready to throw a retirement party.

The need for speed

We keep screaming to go faster, but can we afford to keep up?

Since the introduction of the personal computer, we have managed to convince ourselves that faster is better, at all costs. But I'm convinced we need to change gears. Information technology costs are killing businesses and universities. Hardware and software companies need to do more to extend the practical life span of their products. Businesses can still offer platform choices, but they need to monitor who gets what and why. Equipment should be moved down the corporate food chain as new technologies are adopted where they matter most.

Taking better advantage of what we already own, making better use of hand-me-down computers and throttling back on our desires to go ever faster are essential to business and educational growth. It's that or deal with the inevitable crash. □

G. Morgan Watkins is manager of microcomputer technologies at the University of Texas at Austin. He can be reached at watkins@mail.utexas.edu. Henry Norr is on vacation and will return Aug. 21.

LETTERS

I don't like Quark either

Bravo for you! I couldn't have said it any better. Your statement that Quark Inc. "treats its customers like a nasty smell emanating from under the couch" couldn't be closer to the mark (MacWEEK, July 17, Page 3).

I manage operations for the second-largest advertising agency in Portland, and I can vouch that what you say is true. I hated giving up Adobe PageMaker for QuarkXPress because I am unhappy with Quark's people. But we had to, and it's a crying shame because I would dump Quark like a ton of bricks if the chance ever arose.

Peter J. Wendel
Chief financial officer and vice president of operations
KVO Advertising & Public Relations
Portland, Ore.

cc:Mail waffles in market

Thanks for the comments on e-mail conditions in the Mac marketplace (MacWEEK, July 10, Page 3). I would have to say "good call." As a cc:Mail administrator, I've watched cc:Mail waffle way too much on the Mac client over the past several years.

I certainly hope that Lotus Development Corp. and CE Software Inc. are reading what you have to say. I heartily agree with your comments. I just wish I had the necessary panache to convert our 3,500 nodes from cc:Mail to SoftArc Inc.'s FirstClass. I've used it in a demo mode with hungry anticipation.

Bruce Jorgense
E-mail administrator
Battelle Pacific Northwest Laboratories
Richland, Wash.

Don't judge beta software

In respect to the Reporter's Notebook currently available from MacWEEK's Web page that covered the Mactivity/Web convention (http://www.zdnet.com/~macweek/mw_07-17-95/mactivity-web2.html), I feel there are a few issues that need to be addressed in respect to our AL•I Internet Server.

First and foremost, the product is still in beta testing and should not be construed to be a final version by any means. I believe this may have caused a number of misconceptions, such as the "erratic crashing."

What was left out of the Notebook was the fact that our software is designed to run on 68040 or PowerPC machines only and not the 68020 and 68030 Mac IIs the lab was stocked with. Furthermore, our minimum RAM requirement is 4 Mbytes of RAM above and beyond what the system itself uses; the lab machines had only 5 Mbytes, a great deal less than the amount of memory our software requires.

It should also be noted that our Internet Server makes extensive use of Open Transport, which was not available on the lab machines, forcing us to recompile the version of our software used for the show with an older MacTCP-compliant interface routine.

I would much rather have the readers of MacWEEK make decisions about the quality of our software by examining a "release" version instead of a stripped-down beta version or reading a quote from an anonymous source using a beta version of our software in an environment that it was not even designed to run on.

Mike Marshburn
President/CEO
Delphic Software Inc.
Redlands, Calif.

Mac's going Guy's way

I've just read Don Crabb's column on Guy Kawasaki (MacWEEK, June 26, Page 31). Brilliant move, I agree totally. We (Macintosh cultists) have to suffer companies such as Compaq announcing technologies several years after Apple's debut of the same general product. The Mac OS, "The Apple Advantage" and the "Human Interface Guidelines" are all obviously well-thought-out examples of Apple's lead in advancing the power to the end user.

Apple has a philosophy, and I think it takes a thinking person to identify that this philosophy is more than an empty "mission statement" or some trendy new marketing hype to "capture market share."

Guy has been accorded the status of hero in my life. He is a practical, thinking person who I aspire to be like. Yes, he is an evangelist and a damn good one. Apple needs that right now.

The world would never advance if a few rules were not broken. Guy believes in the Mac. He can, therefore, focus unerringly on the gut cause, maintain the philosophy and communicate this to Mac users, the thinking person and the world.

I respect Guy Kawasaki. I respect the Macintosh Way (Apple Advantage). And I respect Crabb's article.

Jeremy Poff
Christchurch, New Zealand
jeremy.poff@telecom.co.nz

How to contact MacWEEK

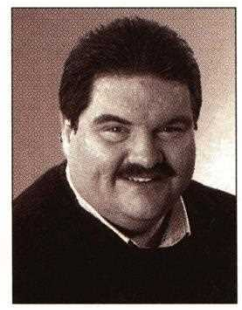
Send letters to MacWEEK, 301 Howard St., 15th Floor, San Francisco, Calif. 94105; fax (415) 243-3651. We can be contacted on-line: CompuServe, 76077,1351; eworld, MacWEEK; MCI, 323-1203; Internet, letters@macweek.ziff.com. Include your name, address and phone number. We reserve the right to edit for clarity and length.

THE MAC MANAGER DON CRABB

The merry prankster and the Windows 95 acid test

The hoo-ha surrounding Microsoft Corp.'s upcoming release of Windows 95 has become nearly deafening. We are now at T-minus 24 days and counting, with the release date set for Aug. 24.

I just received a copy of the golden master CD and started to test it almost immediately for hardware compatibility, a big problem with earlier beta versions. To really stress out Windows 95, I decided to install it on my Power 100 Mac clone, using the final beta version of Insignia Solutions Inc.'s SoftWindows as my baseline Windows platform to upgrade.



Wait. Consider the method in my madness. Earlier versions of the Windows 95 pre-release were noted for being slow when run on modest 486 iron with only 8 Mbytes of RAM. In addition, those beta versions simply would not work with a variety of video cards, CD-ROM drives and other peripherals not living in the land of virtual device drivers provided by the Add New Hardware wizard. So what better way to test the Windows 95 compatibility than to run it on a Mac OS clone using the SoftWindows Intel-standard PC emulator?

Ripley time

My experiment worked! Thanks to SoftWindows 2.0, I now have Windows 95 running on a Power 100 Mac OS clone, despite the fact that all the PC hardware is being emulated, despite the fact that this Mac clone is doubling the size of its hard disk (Symantec Corp.'s DiskDoubler) and RAM (Connectix Corp.'s RAM Doubler), and despite the fact that the final beta version of SoftWindows 2.0 is not designed to run Windows 95. It has even been quite usable with a staggeringly small number of crashes. In fact, it's more reliable than the real 486 PCs I tested Windows 95 on. The performance nets out to about that of a 25-MHz DX 486 using WinBench and straight usage tests.

Then I wondered, what about running it on a 9500? So I borrowed one and checked it out. Damned if it didn't work, even faster than the Power 100. I got speeds comparable to a 33-MHz DX2 486, which was very comfortable for running most applications, video and audio clips, and games.

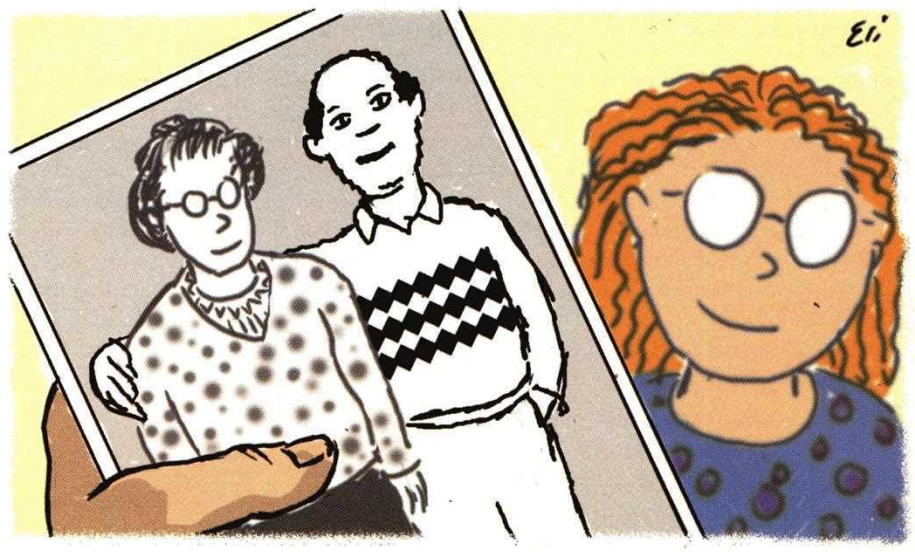
SoftWindows 2.0 worked with my PC networks, provided PC sound support (though not SoundBlaster support) and still worked with the Mac OS. Even though Version 2.0, which will ship at Macworld Expo, has *not* been optimized for Windows 95, I was impressed by all it could do in my experiments. Damn fine code base.

In many ways, SoftWindows 2.0 really glues the often disparate worlds of Windows 95 and the Mac OS together, making the sum much more powerful and flexible than its separate parts.

The strategic Mac

That got me thinking that Apple could crank out a new product in 1996 that would work well with its new "slice and dice the enterprise" marketing plan. The Strategic Mac: a 604 PowerPC running at some god-awful fast speed with a PCI bus and an EISA /ISA bus for backward compatibility with old Wintel cards; the Copland Mac OS; and SoftWindows 2, optimized for Windows 95. Now that could really slice into the heart of Wintel land, especially with the right gonzo pricing and strategic message. □

Don Crabb welcomes comments at his Internet address decc@cs.uchicago.edu. You can also check out his home page at http://cs-www.uchicago.edu/~decc/.



"Here is a picture of Uncle Bit and Auntie Alias, whom you were named after."

Comments? Ideas? Contact Eli at elitoons@aol.com

autodessys drafts model 3-D tool in form•Z update

By Sean Wagstaff

Version 2.7 enters RenderZone with realistic rendering option.

autodessys Inc. has upgraded its 3-D modeling application, form•Z, with greater regularity and persistence of vision than any other Macintosh 3-D software company. The latest version, form•Z RenderZone 2.7, is the first release the company has offered with realistic rendering as an option.

Despite the modest changes in version numbers, autodessys has added numerous new features to the application since we reviewed Version 2.1.2 (see MacWEEK, Feb. 1, 1993, Page 43). The program now offers sweeping along a path and extended objects of revolution such as spirals and springs. Other new features include free-form deformation tools for bending and twisting objects, the capability to create geodesic spheres of any number of sides, automatic tools for generating spiral stairs and threaded screws, and splitting and stitching of surfaces.

form•Z RenderZone 2.7 sells for $1,995. The application can also be purchased without the rendering option for $1,495.

The program ships as a fat-binary installer. autodessys recommends a 680x0 Macintosh with an FPU (floating-point unit) and 8 Mbytes RAM, or a Power Mac with 16 Mbytes of RAM. We found modeling performance on even a Mac IIci to be acceptable; but for realistic rendering, at least a 68040 machine is a wiser choice.

Key to form•Z's modeling tools is a highly accurate and flexible approach to dealing with 3-D geometry: You can manipulate a single point, face or segment of an object, as well as work on whole objects or groups of objects at a time. It also offers a complete, robust set of Boolean operations, so you can derive the Union, Split, Intersection and Difference of two objects. Unlike surface modelers that deal with immeasurably thin 3-D skins, form•Z treats objects as true 3-D solids and can calculate the volume's solid shapes.

autodessys' form•Z RenderZone offers photo-realistic ray tracing, with a complete set of tools for lighting and texture mapping. New to the form•Z 2.7 application is a hierarchical Objects palette, which lets you view and hide objects in their grouping structure.

The program expects you to work in Perspective view in a single window, but you can add other view windows so you can see your work simultaneously from several angles. Many options are available for defining your work space, including the capability to define units, scale and grid positions. Also, you can create your own named coordinate systems at specific locations in space. This is valuable, for example, when you need to make all of your work relative to a particular face of an object or point in space. Snap settings allow you to define how your cursor will snap to working grids as well as to object surfaces and vertexes. And you can now automatically perform translations and scaling when importing and exporting geometry.

You can define and name different views on a palette; these can include Axonometric, Perspective, Isometric and Oblique projections. When using the well-conceived form•Z Imager (a batch-rendering application that comes with the package), you can set up renderings based on these named views. This lets you easily set up different perspectives and leave them to render overnight.

Modeling operations include the gamut of lofting, revolving, extruding and sweep-

See form•Z, Page 28

score card

form•Z RenderZone 2.7g1

autodessys Inc.
Overall value ◆◆◆◆◆ **List price: $1,995***

autodessys' form•Z has done more to push the Macintosh's 3-D modeling envelope than any other program. New features have been added regularly to the product, the latest of which are a full-featured ray-trace rendering engine and interface included in the RenderZone version. With form•Z RenderZone you can now create texture-mapped photo-realistic renderings of your models, as well as build the wireframes. form•Z's selection of modeling features is unsurpassed on the Mac, and many ordinarily difficult modeling tasks are simple and fast once you've mastered the interface. The program's basic rendering is much faster and better in this release (including the non-RenderZone version), and numerous new modeling features are included. Both versions of form•Z are an excellent value for architects, industrial designers, and multimedia and graphics power users.

Performance ◆◆◆◆◆ **Ease of use** ◆◆◆
Features ◆◆◆◆◆ **Documentation/support** ◆◆◆◆◆

**form•Z 2.7 (without RenderZone), $1,495. Upgrades from previous versions are available; call autodessys for more information.*

Key ◆◆◆◆◆ *Excellent* ◆◆◆◆ *Very good* ◆◆◆ *Good* ◆◆ *Fair* ◆ *Unsatisfactory*

FlexWare 8.0 seamlessly melds accounting modules

By Maria Langer

High-end accounting program goes native, data-entry screens cleaned up.

State of the Art Inc. has beefed up FlexWare, its high-end modular accounting package for medium to large businesses, for Version 8.0 by cleaning up data-entry screens, enhancing capabilities in many of the modules and adding native Power Mac support. The program offers a complete accounting solution through its 12 modules, which are priced at $695 each.

FlexWare requires System 7 and at least a Mac II, though a 68030 processor or better is recommended. You'll need at least 8 Mbytes of RAM (16 Mbytes recommended) if you plan to run more than one module at a time. To install all of FlexWare's modules, including the required $95 System Manager, you'll need at least 50 Mbytes of disk space.

Getting started

The program can run over a network via LocalTalk, Ethernet or System 7 file sharing. State of the Art also offers a separate $995 FlexShare file server software, which the company says improves multi-user system performance and reduces network traffic (we did not test FlexShare for our review). Additional licenses, which are required for a multi-user setup, are $295 each or $995 for five users.

As with any accounting package, you must enter information specific to your

See FlexWare, Page 26

Introducing Windows 95.
It lets you use more than eight
characters to name your files.

Imagine that.

score card

FlexWare 8.0

State of the Art Inc.
Overall value ♦♦♦♦ **List price: $695***

The latest version of FlexWare, one of the best high-end modular accounting software packages for the Macintosh, features new native Power Mac performance as well as welcome interface improvements and module enhancements. Changes to the Accounts Receivable and Payable modules — including line-item, part-commissions and new check writing capabilities — improve an already powerful program. While we appreciate FlexWare's redesigned interface for data entry, which includes larger, less-cluttered screens, we were disappointed to see that not only is the program still hampered by interface quirks found in the previous version, but new ones were even introduced this time. Nevertheless, the program's seamlessly integrated modules cover all the standard accounting functions, making it a very good choice for most businesses and accounting professionals.

Performance ♦♦♦♦ **Ease of use** ♦♦♦
Features ♦♦♦♦♦ **Documentation/support** ♦♦♦

**Per accounting module. System Manager, $95; FlexShare, $995; 1-User Network Extension, $295; 5-User Network Extension, $995.*

FlexWare

From Page 24

company — such as general ledger account numbers; names; balances; and employee, vendor and customer information — before any transactions can be made and processed. This is the most time-consuming part of setting up the system. You enter all information into fields on entry forms, some of which include X-Ref buttons that bring up lists of applicable information already entered for other modules. You can add or change setup data at any time.

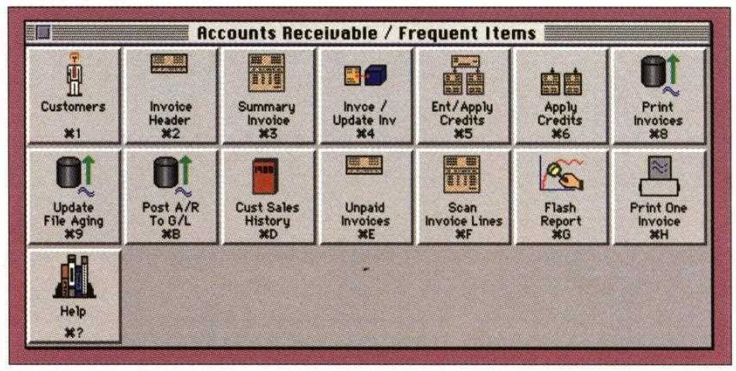
Entering data

As we reported in our review of Version 7 (see MacWEEK, Aug. 8, 1994, Page 31), FlexWare's 12 modules ably cover the entire spectrum of accounting needs, including general ledger, accounts receivable, accounts payable, inventory, purchasing, payroll, order processing, point of sale, job cost and report writing.

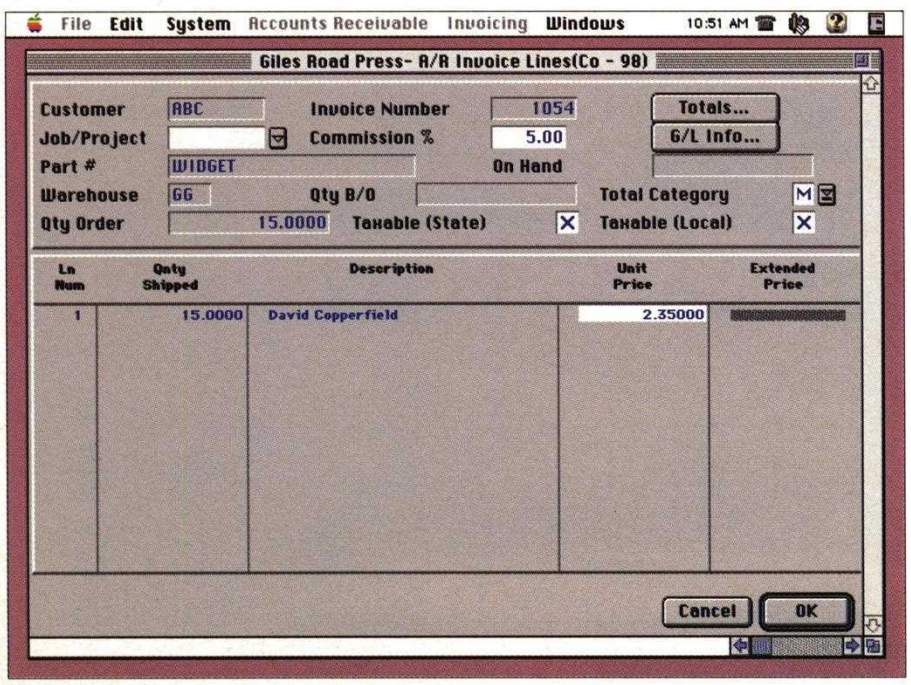
The FlexWare Launcher application displays a window with icons for opening each available module. Once a module is open, you can perform basic tasks from the Frequent Items window or from module-specific menus, and you can enter transactions by filling in simple forms. FlexWare 8's screens are larger than previous versions and include 3-D buttons, making them easier to deal with. Modules' main screens now show only the most important information, which helps reduce clutter, while Quick Look buttons will link you to related entry screens.

When entering information, the X-Ref feature helps by displaying lists of valid data for a specific field. You may find it frustrating, however, when you attempt to enter a transaction only to discover that a piece of required information has not been entered in the database. Since setup data cannot be entered on the fly when recording a transaction, you must cancel the transaction, enter the required information in another form and try again.

FlexWare offers two ways to generate reports: through the Report Writer module and the Spreadsheet Interface feature. With either method, you can create a wide range of fully customizable reports. The Spreadsheet Interface, however, requires the use of a spreadsheet program such as Microsoft Excel that can create and read SYLK files.



When you open a module, FlexWare displays a Frequent Items window with buttons for commonly used processes. You can customize the window to show any tasks you prefer.



You enter transactions in State of the Art's FlexWare into forms, such as this one, that have been simplified and given a 3-D look in Version 8. X-Ref buttons, which look like pop-up menu buttons, let you input appropriate information that you've already entered into the FlexWare database.

New and improved?

State of the Art has enhanced FlexWare's modules with many new features. Bank reconciliations for accounts payable and receivable, automated journal-entry allocations, line-item or part-commission reporting, quotes transferable to invoices, user-defined aging, and enhanced credit and collection tracking all help expand modules that we already considered to be as powerful as we could imagine. We especially liked the new instant check feature that lets you enter, apply and print manual checks. A great new magnetic ink character recognition encoding feature in the Accounts Payable module lets you print checks on plain paper via a laser printer but requires a special font available through third-party font vendors.

Our biggest disappointment with FlexWare 8 is that State of the Art did nothing to address the interface quirks we discussed in last year's review of Version 7, which includes close boxes and scroll bars that do not always function as expected and buttons and menu commands that sometimes lead to puzzling, empty windows.

In addition, we noticed a few new problems that may make a Mac purist cringe: windows that don't resize to display all buttons, OK buttons that may or may not accept entries and display other screens, bold and italic fonts in menus, and scrolling windows that use "More" buttons rather than scroll bars. Although FlexWare was written specifically for the Mac, at times it looks and works more like a program ported from the DOS or Windows world.

Performance

State of the Art says that it completely rewrote FlexWare 8 to take advantage of native Power Mac speed. We tested the program on a Power Mac 7100/66 with 16 Mbytes of RAM running System 7.5.1 and did see much faster performance over previous versions when processing information, generating reports and moving from one entry screen to the next within a module. The only task that didn't seem any faster was moving from module to module. You'll still find yourself waiting while one module quits and the next launches.

Documentation and support

The manuals for all of FlexWare's modules contain an abundance of reference material and illustrations, but they still include numerous cross-references, making it frustrating and time-consuming to find specific information. In addition, the documentation could be improved by providing step-by-step instructions to help users complete a task quickly, without having to read through pages of descriptive information along the way.

FlexWare also includes several types of on-line help, including windows that summarize options, Learn Mode and Pass Help descriptions of entry-form fields, and balloon help. Unfortunately, help windows and the windows they refer to are not always visible together on-screen.

State of the Art offers technical support through a toll-free number, though the support itself is not free — you'll pay $150 per call. When contacted, the support staff was responsive and knowledgeable. A ClientCare support contract is also available for $995 for six months or $1,795 for one year.

Conclusions

FlexWare 8's strength is in its feature set, which includes every accounting function you'd find on an accountant's wish list. Its modules work together seamlessly, offering a customizable accounting environment that can grow as a company grows. Version 7 users should find the improvements in the latest release worth the upgrade fee, while Power Mac users will definitely be attracted to the native Power Mac performance improvements. Our one disappointment continues to be FlexWare's nonintuitive interface quirks that may make the program difficult to learn, even for experienced Mac users; we hope State of the Art will address this issue in the next release. But overall, the program's features and performance do compensate for these annoyances. Medium to large businesses looking for a software package that can handle all their accounting needs won't be disappointed with what FlexWare has to offer.

State of the Art Inc. of Roseville, Calif., can be reached at (916) 791-7730 or (800) 447-5700; fax (916) 791-5525. □

For the record

In our review of ClarisWorks 4.0 (MacWEEK, July 10, Page 43) we incorrectly described the capabilities of the program's HTML (Hypertext Markup Language) Translator. It can convert graphics to GIF (Graphic Interchange Format) and can convert hypertext links.

Introducing Windows 95.
It lets you drop files anywhere
you want on the desktop.

Imagine that.

form•Z

From Page 24

ing operations. There is a very fine degree of control over repetitive duplication and transformation. Deformation tools allow you to bend, twist, punch, stretch and randomize surfaces and, as with other form•Z modeling features, you can confine these activities to precisely controlled regions. We haven't found a single object that we couldn't model with form•Z.

Super model

The modeling tools are very fast in general and offer a high degree of reliability. When modeling very complex objects, form•Z's capability to hide objects and interrupt redraws is quite helpful. form•Z supports Apple's new 3D Metafile format for handling geometry, but QuickDraw 3D support is still on the horizon.

While the application's modeling tools offer a great degree of control, autodessys has taken a consistently unobtrusive approach to adding power and features to them. The tools themselves are all available on tear-off palettes, while Option-clicking a tool brings up its Option dialog. These dialogs are generally very clearly organized and often hide the most obscure features behind other buttons so you can ignore them until you need them. The Loft tool, for example, offers a feature for creating extremely accurate threaded screws with a variety of thread and head types. A new Projection option lets you "unfold" a model, which can then be printed, cut out and glued into a physical model.

Because modeling procedures are usually performed as a series of steps (such as picking an object, selecting the Revolve tool and then selecting a rotational axis), the Prompts palette, which provides context-sensitive instructions, is extremely helpful and provides the entry point for numerical input when needed.

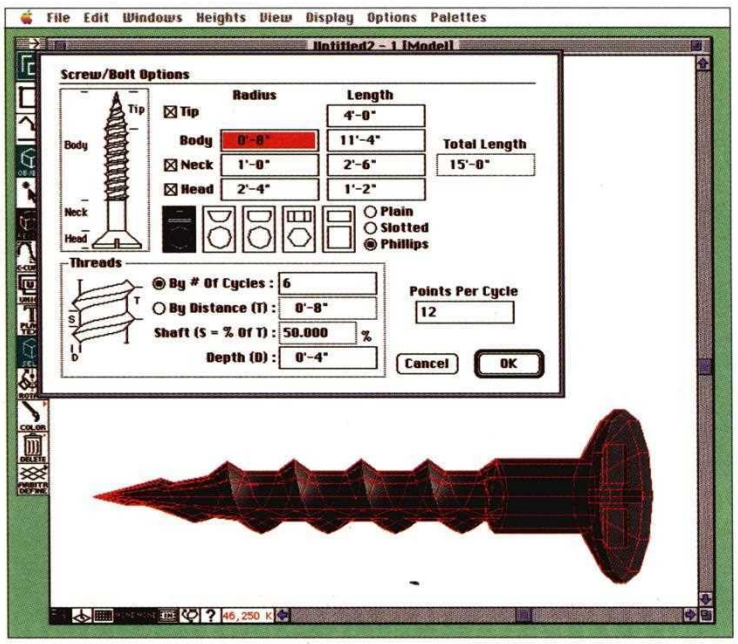
Unlike any other Mac 3-D modeler, form•Z offers unlimited levels of Undo — a great help in any application but particularly in a modeler, in which so many things are done in time-consuming sequences. A macro function allows you to define macros for performing series of repetitive steps.

We found that form•Z's Boolean functions are consistently more accurate and more able to handle difficult modeling problems than any other Mac program. For example, in form•Z it's very practical to create a "mold" by building a complex part, then using this object to "cast" another part via a Boolean operation. In general, other programs that use a surface-model rather than solid-model approach often make this kind of modeling untenable.

As with previous versions of form•Z, the program includes a very good Drafting mode, which allows you to easily move information between the Drafting and Modeling windows. Support for dimensioning and symbols is also very good.

Rendered realistic

RenderZone will be a welcome addition for loyal form•Z users. While the program has unequaled support for those who want to export their models to other applications for rendering or animation, many users would prefer to keep their modeling and rendering under the same roof. This not only saves time but avoids the persistent trap of needing to change a model's geometry after it has been texture mapped in a rendering program.



This dialog for creating realistic threaded screws is one of many lathing options accessed by Option-clicking the Revolve tool. It's typical of the level of detail and control offered by form•Z's modeling tools.

The RenderZone features, which autodessys acquired from LightWork Design Ltd., have been carefully blended into the form•Z interface. The Colors palette has been replaced with one called Surface Styles, while a Lights palette and texture mapping and Decal tools have been added. In addition, a RenderZone option has been added to the Display menu.

Both versions of form•Z benefit from the new rendering technology, as even the standard form•Z has had its slow, somewhat unconvincing preview rendering methods replaced with much faster, higher-quality versions that use the LightWork technology. The RenderZone version, meanwhile, allows you to perform Phong-shaded or ray-traced renderings of textured models with shadows, reflections and refraction.

Distant, point and spot lights are now supported, and they can have a visible glow — a feature previously available only in Electric Image Inc.'s ElectricImage Animation System. Shadow attributes for individual lights can be toggled on or off, as can shadow-catching attributes for objects.

The texture mapping tools provide a great degree of control. You can use form•Z's 3-D procedural textures for creating wood grain, bricks and marble, or you can use bit-mapped images for surface mapping. As with other features in form•Z, the controls over positioning and scaling maps provide a high degree of flexibility and precision.

form•Z RenderZone lacks alpha channel support and ray-cast shadows (soft buffered shadows are supported). The company said it will ship a new release including these details within two months. Overall, we're very impressed with the available features in RenderZone.

CAD-like interface

form•Z's level of control can be confusing to new users, and the details do powerfully influence the way form•Z is used. The program is decidedly aimed at architects, industrial designers and multimedia artists who demand a high degree of accuracy and detail, and these users will need to make a substantial investment in learning the product. form•Z, however, makes up for its initial difficulty: It is far easier to use than many CAD packages, and in the hands of an experienced user it can produce better results in less time than software that is initially easier to learn.

The only other programs that compete in terms of precision are Byte by Byte Corp.'s Sculpt and Visual Information Development Inc.'s Presenter Pro. However, those two programs lag behind form•Z in modeling features. Specular International Ltd.'s Infini-D and Strata Inc.'s StudioPro, meanwhile, sacrifice precision modeling for ease of use, while database-equipped CAD packages such as Intergraph Corp.'s MicroStation are too cumbersome for basic modeling.

One place where form•Z's modeling tools seem disproportionately difficult to use is in creating and manipulating spline meshes. While this is possible in form•Z and can be done with great precision, it's much easier to create organic-looking shapes in a dedicated spline-based modeler such as Presenter Pro or The Valis Group's PixelPutty Solo.

Conclusions

form•Z 2.7 is unsurpassed as a technical Mac 3-D modeler. Its drafting mode makes it ideal for architects and designers who need to output their work as technical drawings, and its depth of features, such as robust Boolean operations, makes it unsurpassed as a conceptual modeler. If you purchase the application alone, you'll be pleased with its powerful rendering engine, but we recommend the bundle with RenderZone. It's an excellent choice for serious modelers who need realistic renderings of their work.

autodessys Inc. of Columbus, Ohio, is at (614) 488-9777; fax (614) 488-0848; formz@aol.com. □

IN BRIEF

PROmotion 1.5.3

App offers livelier interface, picks up Power Mac speed

Overall value ◆◆◆

For the first time in almost three years, Motion Works International Inc. has updated PROmotion, its stand-alone application that allows you to create animations, presentations and QuickTime movies.

New features to Version 1.5 include Power Macintosh support, interface enhancements, and new import and export capabilities for sound and graphics files.

PROmotion 1.5, which has been lowered to $199 from $395, can run on any Mac. It requires System 7.0 or higher, QuickTime 2.0 and at least 4 Mbytes of RAM for color animation.

Installation is a bit confusing for Power Mac users. If you select the Power Mac version from your list of choices in the installer, only the PROmotion application will be copied to your hard disk. Instead, select the full install, which will install the 680x0 application, PROmotion, Apple-events sample files and a read-me file (which contains the only mention of this update's new features). Then perform the Power Mac install.

PROmotion closely resembles its sister product, ADDmotion II, which is bundled with Apple's $129 HyperCard 2.3. The programs have the same interface; the main difference between the two is that ADDmotion is an external command that plays only from within HyperCard, while PROmotion is a stand-alone program that supports Apple events and can send events to HyperCard and other applications.

PROmotion uses path-based animation. You draw a path by clicking control points that represent an object's position in a frame. Clicking many points might become tedious, but PROmotion provides tools for manipulating these control points. The Path Scaling tool inserts points in the path, increasing the number of frames over which the animation plays. The Smooth button makes paths smoother, and the Distributing tool equalizes the distance between control points.

An Actor (an animated object in PROmotion) consists of a single graphic or a series of graphics called cels, which cycle as the Actor moves along the animation path.

A sequence of graphics cycling over a period of frames can be both liberating and constricting — liberating because it makes the animation process simple, constricting because you lose the control of specifying what the Actor looks like in a specific frame. PROmotion's Cel Sequencer addresses that problem by letting you specify which cel of the Actor is displayed in which frame.

Aside from Actors, there are Props (nonmoving graphics), Sounds and Cues. PROmotion doesn't provide scripting, but a number of predefined commands, such as Go To a Frame, Pause and End, can be triggered by a Cue. Cues, which can occur in a single frame or over several frames,

See PROmotion, Page 30

Introducing Windows 95.
It has a trash can you can open
and take things back out of again.

Imagine that.

PROmotion

From Page 28

can be activated upon entering a frame, by clicking the mouse on a particular Prop or by pressing a key. You can also send Apple events via Cues.

PROmotion also offers a basic set of paint tools and some effects such as rotate, flip and tween, as well as a simple sound-editing utility with limited volume and echo adjustment.

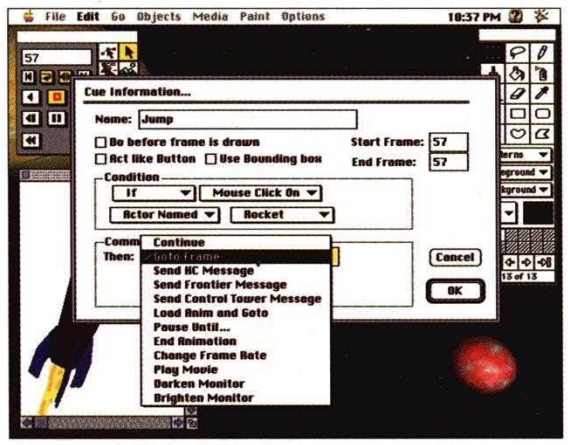
What's new

The most significant improvement to PROmotion 1.5 is its move to the Power Mac. We found the original release sluggish when authoring but did not notice a lack of speed with Version 1.5 on a Power Mac 6100. The most noticeable speed change occurred when saving Actors; Version 1.5 did not hesitate with this task.

Two new Cues, bearing the confusing names of Darken Monitor and Brighten Monitor, provide smooth fade-to-black and fade-up functions.

A number of improvements have been made to the program's interface. For instance, the TimeLine now allows you to jump quickly to a specific frame, and the cursor changes into a cross hair within the paint module. In addition, you can now type cel numbers into the Cel Sequencer, which allows you to quickly jump to a particular cel.

PROmotion 1.5 now imports AIFF (Audio Interchange File Format) sound files and can export a single animation frame as a PICT file. And when you export an animation to a QuickTime movie, the application now lets you choose compressor options.



Motion Works' PROmotion 1.5 lets you create simple events called Cues that let you add interactivity to animations.

To varying degrees, all these enhancements make PROmotion easier to use, but they don't drastically change the functionality of the program. We wish Motion Works had used this opportunity to make some more meaningful changes. For instance, we would like to see Motion Works smooth the interface by replacing some of the program's many dialogs with palettes, as well as rearrange some of the menu commands. The company could also do a better job of documenting the Apple-events functionality. Currently, Motion Works assumes you will buy UserLand Frontier, which provides the proper documentation.

Stop motion

One problem we've encountered in the past with both ADDmotion and PROmotion is losing files after a crash. We're not sure why, but both these programs are prone to corrupting their files after a program or system failure, and PROmotion 1.5 continues this tradition. We recommend saving copies of your work frequently.

We also encountered a problem when importing a graphic as a Prop. We received a cryptic error message that left us with only one option: quit. Motion Works promptly sent us Version 1.5.3, which fixed the problem.

Documentation and support

PROmotion's manual combines a good tutorial and reference but remains unchanged from Version 1.0. An animated HyperCard stack provides an excellent introduction to animation principles. The included Primetime CD, a collection of animations, sounds and QuickTime movies, will be of most interest to users with little or no animation experience. Technical support, which is free for 90 days, was friendly and helpful.

Conclusions

PROmotion provides a reasonably easy-to-use method for creating animations, and its interactive features are a bonus. However, while Version 1.5's new features may be nice for regular users of the program, apart from the two new Cues, they don't add anything you couldn't work around in Version 1.0. Current users should upgrade only if they own a Power Mac.

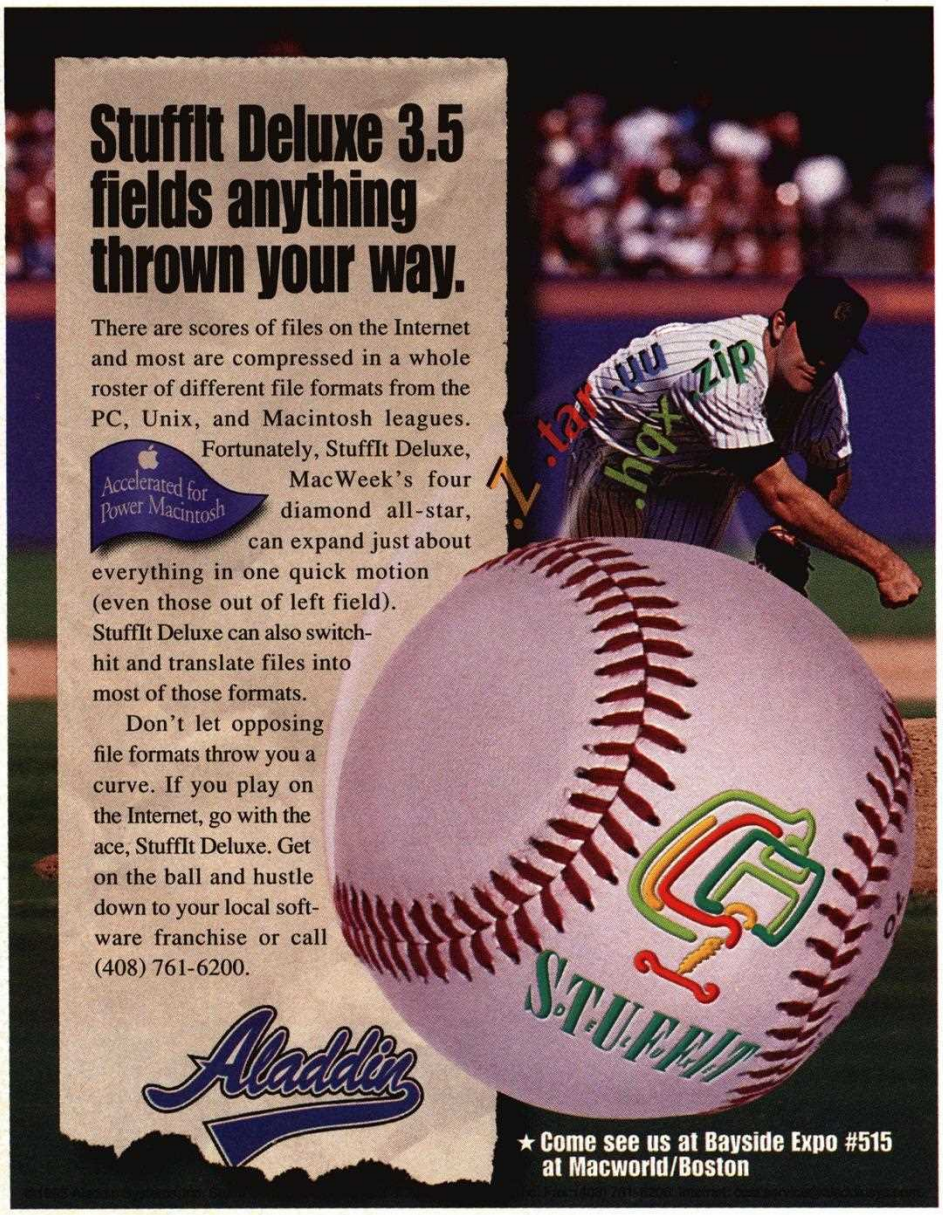
For many users we still recommend ADDmotion II. It has almost the same animation functions as PROmotion but offers the increased functionality that HyperCard provides. And for $70 less than the price of PROmotion 1.5, you also get HyperCard 2.3.

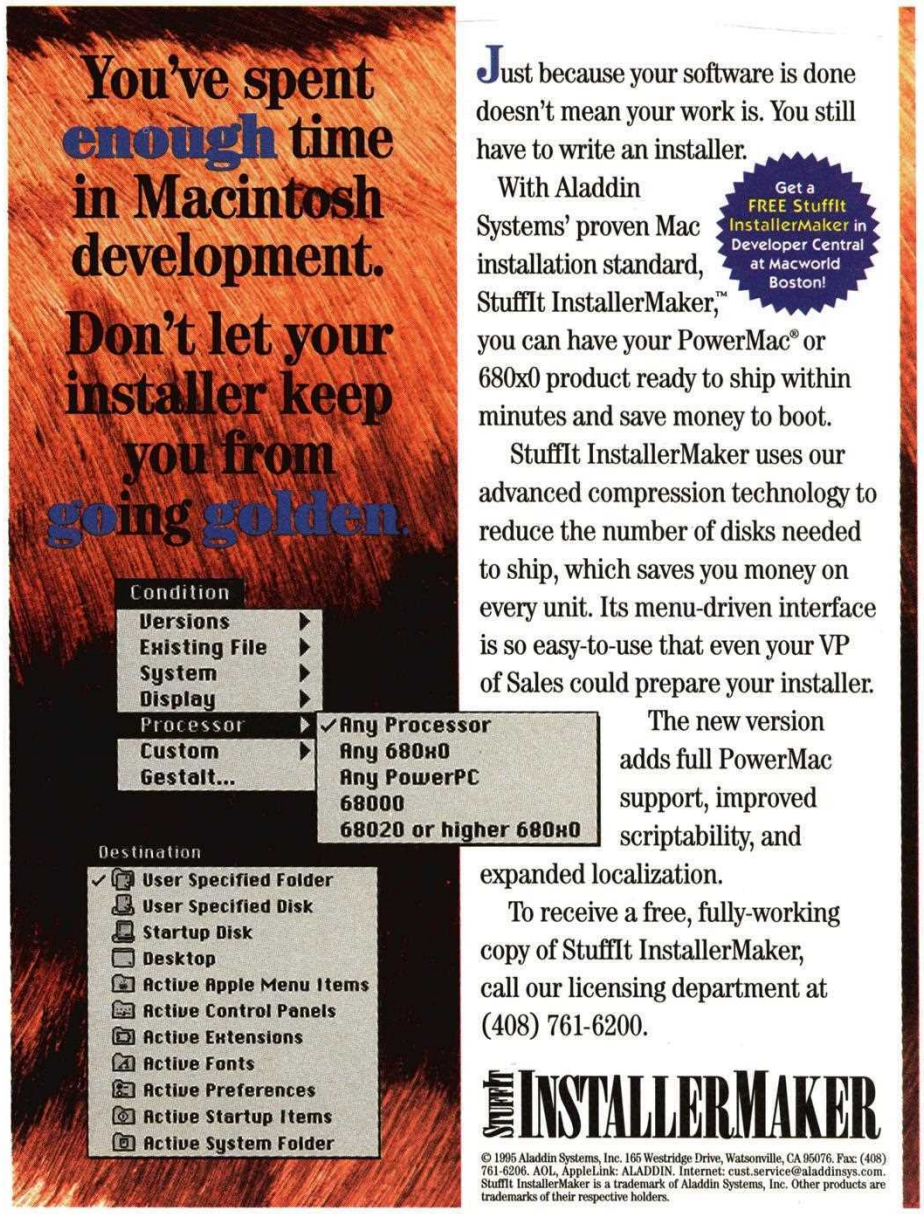
If all you want to do is animate bullet charts, you may be happier with a presentation program such as Gold Disk Inc.'s $249.95 Astound or Macromedia Inc.'s $199 Action! for Macintosh. But budget-minded first-time animators who want to create stand-alone projects may discover that PROmotion 1.5 is all they need.

Full upgrades from Verison 1.0, including the Primetime CD-ROM, are available for $49.

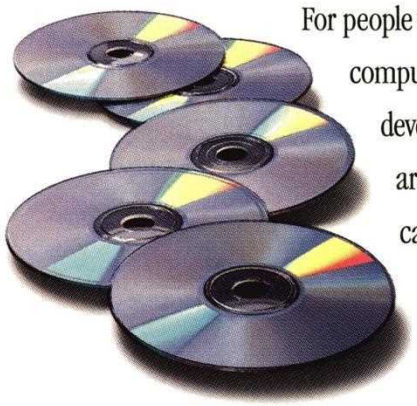
Motion Works International Inc. of San Francisco can be reached at (415) 541-9333; fax (415) 541-0555; info@motionworks.com.

— By Michael D. Murie


StuffIt Deluxe 3.5 fields anything thrown your way.
There are scores of files on the Internet and most are compressed in a whole roster of different file formats from the PC, Unix, and Macintosh leagues. Fortunately, StuffIt Deluxe, MacWeek's four diamond all-star, can expand just about everything in one quick motion (even those out of left field). StuffIt Deluxe can also switch-hit and translate files into most of those formats.
Don't let opposing file formats throw you a curve. If you play on the Internet, go with the ace, StuffIt Deluxe. Get on the ball and hustle down to your local software franchise or call (408) 761-6200.
Accelerated for Power Macintosh
.tar .uu .hqx .zip
S.T.U.F.F.I.T
Aladdin
★ Come see us at Bayside Expo #515 at Macworld/Boston


You've spent enough time in Macintosh development.
Don't let your installer keep you from going golden.
Condition
Versions
Existing File
System
Display
Processor
Custom
Gestalt...
Any Processor
Any 680x0
Any PowerPC
68000
68020 or higher 680x0
Destination
User Specified Folder
User Specified Disk
Startup Disk
Desktop
Active Apple Menu Items
Active Control Panels
Active Extensions
Active Fonts
Active Preferences
Active Startup Items
Active System Folder
Get a FREE StuffIt InstallerMaker in Developer Central at Macworld Boston!
Just because your software is done doesn't mean your work is. You still have to write an installer.
With Aladdin Systems' proven Mac installation standard, StuffIt InstallerMaker,™ you can have your PowerMac® or 680x0 product ready to ship within minutes and save money to boot.
StuffIt InstallerMaker uses our advanced compression technology to reduce the number of disks needed to ship, which saves you money on every unit. Its menu-driven interface is so easy-to-use that even your VP of Sales could prepare your installer.
The new version adds full PowerMac support, improved scriptability, and expanded localization.
To receive a free, fully-working copy of StuffIt InstallerMaker, call our licensing department at (408) 761-6200.
StuffIt InstallerMaker
© 1995 Aladdin Systems, Inc. 165 Westridge Drive, Watsonville, CA 95076. Fax: (408) 761-6206. AOL, AppleLink: ALADDIN. Internet: cust.service@aladdinsys.com. StuffIt InstallerMaker is a trademark of Aladdin Systems, Inc. Other products are trademarks of their respective holders.

Imagine this.



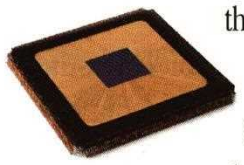
For people who don't use a Macintosh® computer, the most significant development in years has finally arrived. It's very big news. It's called Windows 95.

Yes, Windows 95 makes it easier for people to use their computers. It's a little more graphical. A little more intuitive. It even has a trash can.

In short, it makes a PC more like a Macintosh — you know, the Macintosh we built back in 1984. But compare a PC running Windows 95 to the Macintosh of 1995, and you'll discover a decade of difference.

A new kind of power.

In a recent independent study, for example, the RISC-based Power Macintosh™ 9500 outperformed a 120 MHz Pentium-processor-based PC running Windows by 63% on average. When running scientific and technical applications, the Power Macintosh advantage climbed to 80%. While for power-hungry graphics applications, the Power Mac™ was more than twice as fast.*



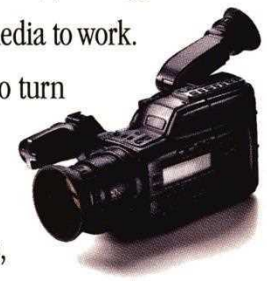
Why does the average person need this kind of power on his or her desktop? Because — as both Microsoft and Intel are quick to point out — graphics, multimedia and interactive media will play a huge role in the future of personal computing. What they *don't* point out, of course, is that Power Macintosh delivers the power you need for these advanced, processing-intensive applications, today.

A computer you can use.

Of course, all the raw power in the world is worthless if you can't use it. That's why every Macintosh is so easy to set up and use. That's why every new Mac™ includes an innovative help system that doesn't just answer your questions, but shows you what to do, where to click and what to type to get things done. And why we make it so easy to create Internet connections, install multimedia software and set up entire new networks from scratch.

The way beyond multimedia.

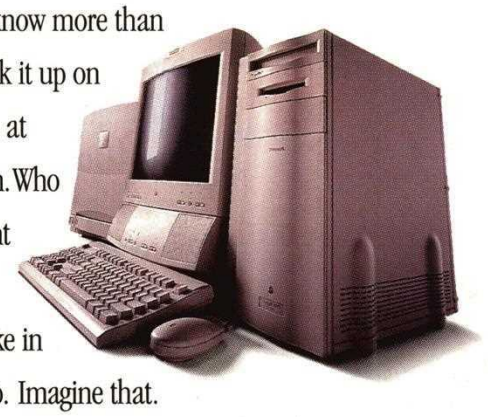
For many of the companies that design and manufacture PCs (or write operating systems for them), the biggest challenge of all is simply getting multimedia to work.



Meanwhile, ordinary people who turn on a Power Mac can do a lot more than run snappy new multimedia titles. They can create 3-D graphics, use voice recognition, videoconference across continents, even get started with virtual reality — all at the touch of a few keys and a click of a mouse. Because you can get these so-called "future" technologies in a Power Macintosh, today.**

A new choice.

The next time you hear the skeptics say, "But a Macintosh won't run the software we need," tell them this: There's now a Macintosh — the Power Macintosh 6100/66 DOS Compatible, to be specific — that runs everything a Macintosh can run, *plus* thousands of programs for Windows and DOS. Then, if they ask you about hardware compatibility, tell them how the PCI slots built into the new Power Mac accept standard PCI cards.



If they want to know more than that, tell them to look it up on the World Wide Web, at http://www.apple.com. Who knows, they just might get a peek at what Windows will look like in another decade or so. Imagine that.

*Big surprise, huh? For more ammunition to use against Windows fanatics, surf on over to http://www.apple.com to see the results of independent testing by Competitive Assessment Services, 1995. **Some of these capabilities may require the purchase of additional software or hardware. © 1995 Apple Computer, Inc. All rights reserved. Apple, the Apple logo and Macintosh are registered trademarks of Apple Computer, Inc. Mac, Power Mac and Power Macintosh are trademarks of Apple Computer, Inc. All Macintosh computers are designed to be accessible to individuals with disability.

Big Gigabyte Now From

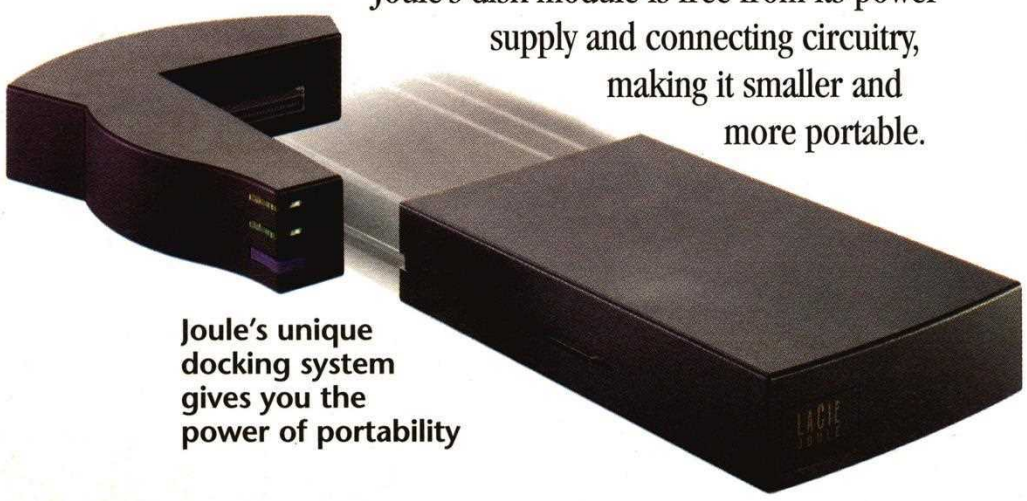
Joule™ 1 GB Portable $489

There's never been a better time to buy the mass storage you need than right now!

For a limited time we're offering huge price reductions on all our 1 GB internal and 1 GB external Joule portable drives.

For just $389 you can purchase ***over*** 1 Gigabyte of high quality internal hard disk storage. These half-height drives feature 9.5ms average seek times and reliable 3½" Quantum hard disk technology.

Or for only $489 you can have the power and unmatched convenience of Joule's Portable Hard Drives featuring revolutionary SmartDock™ technology. With SmartDock, a Joule's disk module is free from its power supply and connecting circuitry, making it smaller and more portable.



Joule's unique docking system gives you the power of portability

So when you need to share, or move, or lock away your data you can, with all the convenience of a diskette or cartridge, only bigger...1 gigabyte bigger!

We also offer a wide choice of other hard disk capacities or removable media options in the Joule format. Each can freely plug into the SmartDock for stand-alone use.

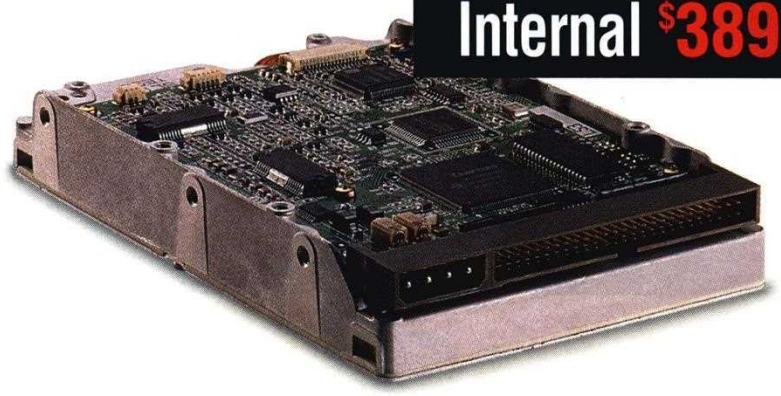
In addition, only Joule's SmartDock detachable circuitry protects your data from a rare power supply failure like no other drive can. Joule's exclusive DataSafe™ policy even replaces your dock's power supply, SCSI circuitry and fan without ever touching your disk module.

Transfer gigabytes of data the fastest way possible.

FREE PHONE SUPPORT FAST!!

30 Day Money Back Guarantee*

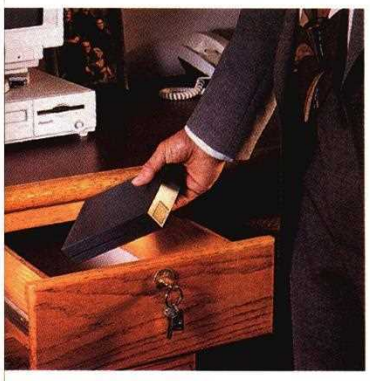
Drives $389.00



Quantum 1 GB Internal $389

And every drive includes Silverlining hard disk software, La Cie Term digital active SCSI termination, plus all the connections you need to get to work fast.

Joule's unique portability and capacity let you share, secure or expand storage without a struggle. And at these new low prices, purchasing is easier too.



Unplug and lock away data for safe keeping in seconds.

Take a Joule home, on the road or to your service bureau.

Ready to Plug And Play

Silverlining™ FREE with La Cie Drives!

"La Cie's new stackable design...offers several benefits over other standard external case designs."

MacWeek – 10/94

I.D. Magazine 40TH ANNUAL DESIGN REVIEW WINNER 1994

Industrial Design Excellence Award SILVER 1994

MAC HOME JOURNAL

Joule Hard Drives

	INTERNAL†	PORTABLE w/ DOCK
3.5" Hard Drives		
Quantum – 2 or 5 year warranties		
540MB	$199	$299*
730MB	$229	$329*
1080MB	$389	$489*
2150MB	$799	$899*

$489 Joule 1080MB Hard Drive

* These drives are also available in Joule Base configurations for an additional $60.

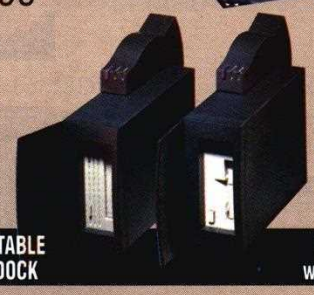
† Brackets available for $10 with HD purchase

2.5" Hard Drives		
Quantum – 2 year warranty		
256MB	$199	$299
341MB	$299	$399
514MB	$399	$499

2-1/2" Internal 256MB

SPECIAL $199

Joule Removable Drives



Joule Portable SyQuest 270MB

$489 With FREE Cartridge

	INTERNAL w/ BRACKET	PORTABLE w/ DOCK
230MB Fujitsu Optical Drive	$549	$649*
With Free 3.5" Cartridge – 1 Yr Warranty		
SyQuest Drives		
With 1 Free Cartridge – 1 Year Warranty		
270MB	$419	$489*
200MB†	$439	

* These drives are also available in Joule Base configurations for an additional $60.

† 200MB SyQuest Drives are also available in Joule Base configurations for an additional $60.

Continuum Virtual Disk™ FREE with La Cie Drives!

	INTERNAL w/ BRACKET	PORTABLE w/ DOCK
600MB Tape Drive	$579	$649
Includes 1 Free Tape Cartridge & Retrospect™ – 1 Year Warranty		
8.0GB DAT Tape Drive	$929	$999
Includes 1 Free Tape Cartridge & Retrospect™ – 1 Year Warranty		

Removable Cartridges

SyQuest:	**44MB**	$49	**88MB**	$49
	200MB	$79	**105MB**	$59
	270MB	$69		
Optical:	**230MB**	$39		

Joule RAID

Bundled with Trillium Research Software configurable to levels 0, 1, 4 & 5.

2.0GB	$1299	**8.4GB**	$3999
4.2GB	$2499	**16.8GB**	$7999

MACWORLD MW EDITORS' CHOICE

LACIE LIMITED A QUANTUM COMPANY

1-800-999-1372

Mon.– Fri. 5AM-7PM & Sat. 8AM-NOON PST
International 503-520-9000 Fax 503-520-9100 (24 hrs.)
UK 0800-89-3025 Australia 0014-800-123-007

* Call for details, conditions, limited money back guarantee, and free offers. Prices do not include shipping and only apply to products shipped within the continental United States. Add sales tax where applicable. Joule, Joule Portable, La Cie Term, DataSafe, Silverlining, La Cie and the La Cie logo are trademarks of La Cie, Ltd., a Quantum Company. All other trademarks are the property of their respective companies. All prices, specifications, terms, warranties, descriptions, products and services herein are subject to change without notice or without recourse. © Copyright 1995 La Cie, Ltd. All rights reserved.

New Quantum Drives

The classic choice in hard disk drives.

Simple. Rugged. Award-winning design. The Tsunami has been an industry favorite for years.

Tsunamis feature quick Quantum hard drives, switchable active termination and whisper-quiet fans. Performance and value are packed in this sleek style that stands upright with a small footprint, or stacks neatly on its side.

Tsunami external drives are shipped ready to plug and play with power and SCSI cables, Silverlining hard disk management software and solid warranties up to 5 years.

TSUNAMI DRIVES

1080MB $489

SPECIAL PRICES

	INTERNAL DRIVE	TSUNAMI CASE
Quantum – 2 year warranty		
540MB	$199	$299
730MB	$229	$329

• Five year warranty upgrade available $19.95

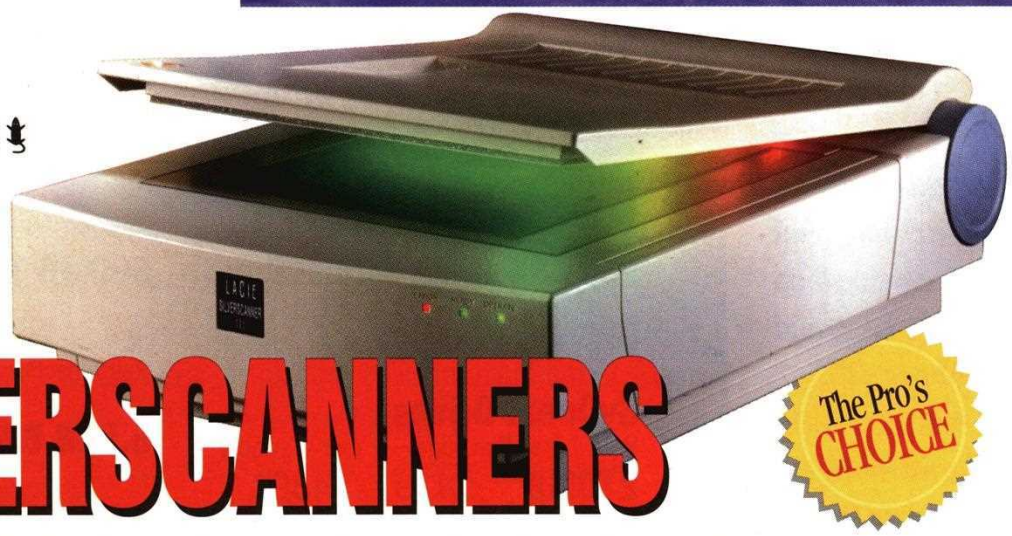
Quantum – 5 year warranty		
1080MB	$389	$489
2150MB	$799	$899
4300MB	$1299	$1399

• Free software with La Cie Drives including Silverlining.

30 Day Money Back Guarantee*

MACWORLD MW EDITORS' CHOICE

MACWORLD World Class Awards



SILVERSCANNERS

The Pro's CHOICE

Silverscanner III - Package 1 $1499
- Color It!
- Read-It Pro OCR
- Silverscan

Silverscanner III - Package 2 $1799
- Photoshop (full)
- Read-It Pro OCR
- Silverscan

Silverscanner DTP $899
- Photoshop LE
- Read-It Pro OCR
- Silverscan

Transparency Adapter $799

Sheet Feeder Attachment $499

Put brilliant 30 bit color and outstanding optics on your desktop. Quick, automatic, and customizable. Silverscanners ship with Silverscan, La Cie's award-winning software.

Silverscanner III

Top performance with 600 x 1200 dpi, interpolating to 4800 dpi. For the professional or the recreational user, when you want speed and the best color reproduction you can get.

Silverscanner DTP

Full-featured performance for the home office set up. 400 x 800 dpi native resolution. 3200 dpi through software.

NOW Contact™ FREE with La Cie VIP Scan!

INSTANTLY SCAN BUSINESS CARDS INTO YOUR MACINTOSH.

La Cie's VIP SCAN™ turns your card file into a powerful database quickly and easily. VIP SCAN records and files logos, names, addresses and phone numbers for quick access. With one click, data exports to Now Contact, Symantec Act, or Claris Organizer.

VIP SCAN also comes complete with Now Contact, the leading contact management software.

VIP SCAN and Now Contact Only $199

LACIE LIMITED
A QUANTUM COMPANY

1-800-999-1372

Mon.– Fri. 5AM-7PM & Sat. 8AM-NOON PST
International 503-520-9000 Fax 503-520-9100 (24 hrs.)
UK 0800-89-3025 Australia 0014-800-123-007

Prices do not include shipping and only apply to products shipped within the continental United States. Add sales tax where applicable. Silverlining, La Cie and the La Cie logo are trademarks of La Cie, Ltd., a Quantum Company. All other trademarks are the property of their respective companies. All prices, specifications, terms, warranties, descriptions, products and services herein are subject to change without notice or without recourse. © Copyright 1995 La Cie, Ltd. All rights reserved.

FASTER, FASTER

Extensions that will increase V.34-standard line speeds to 33.6 Kbps are expected next month.

MODEM BUYER'S GUIDE

V.34 standard for 28.8-Kbps modems hitting the mark

By Michael Miley

PAMELA HOBBS

With reliability and speed now a given, users can shop for features that suit their needs.

It's been more than a year since the International Telecommunications Union ratified the V.34 standard for 28.8-Kbps modems, and in that time several companies have come out with offerings compatible with the Macintosh. These range from high-end rackmount units often pushing the $1,000 mark to PCMCIA cards for the traveling telecommunicator in the $400-to-$600 range, to stand-alone models often available for less than $200.

Users report that vendors have worked hard to iron out many of the bugs in their modems and in the V.34 implementations, with the result that potential buyers can now spend more time deciding what features best suit their needs rather than worrying whether a modem will be reliable and fast.

Vendors with modems in the higher price range include AT&T Paradyne, Motorola Information Systems Group, Multi-Tech Systems Inc., U.S. Robotics Inc., Telebit Corp., Zypcom Inc. and ZyXEL. The AT&T Paradyne Comsphere 3810Plus, which sells for $1,095, and the Motorola V.3400, which sells for $895, have a full set of features, including digital or ISDN (Integrated Services Digital Network) options; rackmount versions and two- or four-wire leased-line options; watchdog timers with automatic reset for unattended operation; and network management support for remote configuration and SNMP (Simple Network Management Protocol) monitoring. Modems in this category usually implement a fuller suite of the V.34 tool set, which translates to more-reliable connections and higher speeds over a wider range of local loops and trunk lines in the Public Switched Telephone Network.

The bells and whistles on these modems can vary, but the better models will provide more-advanced features, such as sophisticated diagnostics, network bridging capability, password support, automatic dial-back, flash memory for easier upgrades, fax capability and multiple phone-number storage.

The AT&T Paradyne Comsphere 3800-Plus series and the Zypcom Z34-SX, which sells for $749, also have extensions to V.34 that can permit connections of 33.6 Kbps over good phone lines. Such extensions are likely to become part of the V.34 standard by the third quarter of this year (see story, left). Some modems also have voice support, so you can simultaneously talk and transmit data over the same line.

Heavy traffic

The higher-end modems are ideal for intensive settings. Internet service provider Netcom On-Line Communications Services Inc. of San Jose, Calif., for example, serves more than 150,000 users nationwide with about 10,000 modems scattered over 150 points of presence. Of both its analog and digital modems, 85 percent are from U.S. Robotics, and all the modems it has purchased since the fourth quarter of 1994 are V.34 modems from U.S. Robotics.

August Cattaneo, access engineering technical specialist at Netcom, is responsible for the care and maintenance of the U.S. Robotics Enterprise Networking Hub installed at Netcom for dial-up and leased-line connections. "We're using rackmounted, dual and quad V.32 and V.34 analog and digital modems here, and we're in the process of upgrading the dual analogs to V.34 by swapping out the daughterboards," Cattaneo

See Solutions, Page 37

Beyond V.34: Faster specifications

On June 9, 1994, the ratification of the V.34 standard by the International Telecommunications Union, Study Group 14, (ITU-T) ended a confusing period of vying interim standards, including the 28.8 V.Fast Class standard promoted by Rockwell International Corp. and the earlier 19.2-Kbps extension to V.32bis for 14.4-grade modems, called V.32terbo. With V.34, the industry got a true standard for 28.8 Kbps, and vendors immediately showed their support by producing V.34-compliant modems. Motorola Information Systems Group, one of the main promoters of the standard, was among the first vendors to do so.

The V.34 standard establishes "adaptive intelligence" for modems, where multiple modulation and impairment-compensation techniques provide a toolbox of technologies for vendors. Modems utilizing an optimum set of the V.34 toolbox are designed to adapt to any given telephone channel to achieve the best possible performance on any given call. Ten enhanced or new modulation techniques add to the earlier methods, including line probing, the most significant enhancement in the V.34 standard.

Checking the line

Line probing is a bidirectional half-duplex exchange performed immediately after the handshake of two 28.8-Kbps modems; it enables the distant receiver to analyze the characteristics of the telephone channel before entering data transmission. This lets V.34 modems adapt to a broad range of different line types and distortions. The probe can recur at any time during the connection to adapt to prevailing conditions, a particularly important feature for leased-line operations.

Extending limits

Some companies are also promoting extensions to V.34 that can increase the speed of modems to 33.6 Kbps over good phone lines. The AT&T Paradyne Comsphere 3800Plus series and the Zypcom Z34-SX, for example, have shown in field tests that modems can reliably transmit at 33.6 Kbps over good phone lines. Ray Wright, marketing director for Motorola's analog V.34 modems in Mansfield, Mass., said he expects these extensions to be officially added to the V.34 standard by August.

A new specification for Digital Simultaneous Voice & Data (DSVD) was developed in 1994 by leading companies such as Creative Labs Inc., Hayes Microcomputer Products Inc., Intel Corp., Rockwell International and U.S. Robotics Inc. (DSVD specs from other vendors have also been introduced.) DSVD allows users to simultaneously exchange digital data and voice over regular analog lines while adding video over LANs and ISDN.

DSVD has already appeared in such modems as the U.S. Robotics Sportster Vi 28.8 fax-modem and promises to be an important add-on protocol for V.34 modems, especially for interactive applications.

— By Michael Miley

V.34-standard modems

COMPANY	PRODUCT	STREET PRICE	CHIP SET	BUNDLED SOFTWARE	SERIAL CABLE INCLUDED	DATA TRANSFER SPEED	DATA COMPRESSION	ERROR CORRECTION	WARRANTY
ARCHTEK AMERICA CORP. City of Industry, Calif. (818) 912-9800	**SmartLink**	$239	AT&T	QuickLink II, AOL	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
AT&T PARADYNE Largo, Fla. (813) 530-2000 or (800) 482-3333	**DataPort Express**	$229	Rockwell	MacComCenter	Yes	28.8 Kbps	V.42bis	V.42	5 years
BEST DATA PRODUCTS Chatsworth, Calif. (818) 773-9600	**Smart One 2834FXMAC**	$199	Rockwell	MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	2 years
BOCA RESEARCH INC. Boca Raton, Fla. (407) 997-6227	**MV.34MA**	$229	Rockwell	MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
CARDINAL TECHNOLOGIES INC. Lancaster, Pa. (717) 293-3000 or (800) 775-0899	**MVP288XF**[P]	$179	Rockwell	n/a	No	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	Limited lifetime
E-TECH RESEARCH Santa Clara, Calif. (408) 988-8108 or (800) 328-5538	**Bullet E288MX**[R]	$249	AT&T	WinFax LITE	No	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	2 years
	Bullet 100E[R]	$399	AT&T	WinFax LITE	No	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	2 years
GLOBAL VILLAGE COMMUNICATION INC. Sunnyvale, Calif. (408) 523-1008	**Platinum 28.8**	$235	Rockwell	GlobalFax 2.5	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
HAYES MICROCOMPUTER PRODUCTS INC. Atlanta (404) 840-9200	**Accura 28.8 V.34**[P]	$235	Rockwell	MacComCenter	Yes	28.8 Kbps	V.42bis	V.42, MNP 2-4	2 years
LOGICODE TECHNOLOGY INC. Camarillo, Calif. (805) 388-9000 or (800) 735-6442	**Quicktel 2814XVM**	$205	Rockwell	QuickLink II, WinFax LITE	Yes	115.2 Kbps	V.42bis, MNP 5	V.42, MNP 2-4, MNP10[3]	Limited lifetime
MOTOROLA INFORMATION SYSTEMS GROUP Huntsville, Ala. (205) 430-8000 or (800) 451-2369	**Power Class**[R]	$369	Motorola	MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
	Lifestyle Series[R]	$309	Motorola	MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
MULTI-TECH SYSTEMS INC. Mounds View, Minn. (612) 785-3500 or (800) 328-9717	**MT2834PCS-Mac**	$649	AT&T	MultiExpressPCS-Mac, MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, LAP-M, MNP 2-4	5 years
	MT2834ZDX-Mac	$249	AT&T	MacComCenter	Yes	28.8 Kbps	V.42bis,MNP 5	V.42, LAP-M[1]	10 years
PRACTICAL PERIPHERALS Norcross, Ga. (404) 840-9966	**MacClass 288 Mini Tower II V.34**[P]	$279	Rockwell	MacComCenter	Yes	115.2 Kbps	V.42bis	V.42	Limited lifetime
	MacClass 288 LCD V.34[P]	$350	Rockwell	MacComCenter	Yes	115.2 Kbps	V.42bis	V.42	Limited lifetime
PROMETHEUS PRODUCTS INC. Tualatin, Ore. (503) 692-9600 or (800) 477-3473	**CyberPhone M288esvp**	$279	Sierra Accusound	Communicate Lite, CompuServe, AOL, eWorld	Yes	57.6 Kbps	V.42bis, MNP 5	V.42, MNP 4	5 years
SUPRA CORP. Vancouver, Wash. (360) 604-1400 or (800) 727-8772	**SupraFAXModem 288**	$249.95	Rockwell	FAXcilitate, MicroPhone LT	Yes	28.8 Kbps	V.42bis, MNP 5	MNP 10, LAP-M[1]	5 years
	SupraExpress 288	$199.95	Rockwell	FAXcilitate, MicroPhone LT	Yes	28.8 Kbps	V.42bis, MNP 5	MNP 2-4, LAP-M	5 years
TELEBIT CORP. Sunnyvale, Calif. (408) 734-4333 or (800) 835-3248	**TeleBlazer**	$349	Rockwell	WinFax LITE, AOL, CompuServe, Delphi	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	2 years
U.S. ROBOTICS INC. Skokie, Ill. (708) 676-7010 or (800) 342-5877	**Sportster Mac & Fax V.34**[P,R]	$219	Proprietary	MacComCenter	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 2-4	5 years
ZOOM TELEPHONICS INC. Boston (617) 423-1072 or (800) 666-6191	**Zoom FaxModem V.34X**[P]	$199	Rockwell	StartFaxing, MicroPhone LT	Yes	28.8 Kbps	V.42bis, MNP 5	V.42, MNP 10, MNP 2-4	7 years
ZYPCOM INC. Hayward, Calif. (510) 783-2501	**Z34-SEM**[R]	$529	AT&T	WinFax LITE	Yes	28.8 Kbps	V.42bis	V.42	2 years
ZYXEL Anaheim, Calif. (714) 693-0808 or (800) 255-4101	**Elite 2864**	$470	ZyXEL	n/a	Yes	28.8 Kbps	V.42bis	V.42	5 years
	Elite 2864I-U	$645	ZyXEL	n/a	Yes	28.8 Kbps[2]	V.42bis	V.42	5 years
	Omni 288	$355	ZyXEL	n/a	Yes	28.8 Kbps	V.42bis	V.42	5 years

[P]PCMCIA version available. [R]Rackmount version available. [1]Also includes MNP 2-4. [2]ISDN transfer rate is 128 Kbps. [3]Optional.

SOLUTIONS

From Page 35

said. "The quad analogs were not upgradable, so we're replacing them."

At Netcom, all the rack chassis have network monitoring cards, which let Cattaneo monitor the modems on the network remotely on an SNMP console using their Internet Protocol addresses. "When a rack sends me a message that a modem is exceeding a threshold, for example, I can busy that modem out, add them to the auto-response list in the SNMP MIB [Management Information Base], run some tests and do whatever's necessary to get it back on line," he said. "The fact that we can correct modem problems remotely through the network monitoring system is a big plus."

Midrange modems

Modems priced in the middle range include products from AT&T Paradyne, E-Tech Research, Global Village Communication Inc., Hayes Microcomputer Products Inc., Motorola, Practical Peripherals, U.S. Robotics, Telebit, Zypcom and ZyXEL.

Modems in this range provide a subset of the high end and are targeted toward corporate use. These modems are typically asynchronous, analog, stand-alone modems with some remote-management capabilities.

At ADP Network Services, an X.25

See Solutions, next page

Additional features on V.34-standard modems

PRODUCT	FEATURES
SmartLink	Flash memory, incoming call recognition,* LEDs
DataPort Express	Incoming call recognition,** LEDs
Smart One 2834FXMAC	Incoming call recognition,* LEDs
MV.34MA	Incoming call recognition,* LEDs
MVP288XF	Flash memory, LEDs
Bullet E288MX	Call-back security,* LEDs,** remote configuration*
Bullet 100E	Alphanumeric display,* call-back security,* flash memory,** incoming call recognition,* LEDs,** remote configuration*
Platinum 28.8	Caller ID, flash ROM, incoming call recognition, LEDs
Accura 28.8 V.34	Incoming call recognition,*
Quicktel 2814XVM	Caller ID, cellular ready, flash memory, incoming call recognition, LEDs
Power Class	Call-back security, caller ID, incoming call recognition, LEDs
Lifestyle Series	Call-back security, caller ID, flash memory, LEDs, incoming call recognition, remote configuration
MT2834PCS-Mac	Call-back security, flash memory, incoming call recognition,** LEDs, remote config., voice capability
MT2834ZDX-Mac	Incoming call recognition,** LEDs, remote configuration

PRODUCT	FEATURES
MacClass 288 Mini Tower II V.34	Caller ID, incoming call recognition,* LEDs,
MacClass 288 LCD V.34	Alphanumeric display, caller ID, incoming call recognition,* LEDs
CyberPhone M288esvp	Caller ID, incoming call recognition,* LEDs, voice capability**
SupraFAXModem 288	Alphanumeric display, caller ID, cellular ready, flash memory, incoming call recognition, LEDs
SupraExpress 288	Incoming call recognition,* LEDs
TeleBlazer	Cellular ready,* incoming call recognition,* LEDs
Sportster Mac & Fax V.34	Call-back security,* incoming call recognition, LEDs
Zoom FaxModem V.34X	Alphanumeric display,* call-back security,* caller ID, cellular ready, incoming call recognition, LEDs
Z34-SEM	Call-back security, caller ID, cellular ready, flash ROM, incoming call recognition, LEDs, remote config.
Elite 2864	Call-back security, caller ID, flash memory, incoming call recognition, LEDs, remote configuration, voice capability
Elite 2864I-U	Call-back security, caller ID, flash memory, incoming call recognition, LEDs, remote config., voice capability
Omni 288	Call-back security, caller ID, flash memory, incoming call recognition, LEDs, remote configuration, voice capability

*Note: All features are hardware-based except where marked. *Software-based. **Hardware- and software-based.*

⌘future

Introducing the Power Macintosh™ 9500.

©1995 Apple Computer, Inc. All rights reserved. Apple and the Apple logo are registered trademarks of Apple Computer, Inc. Power Macintosh is a trademark of Apple Computer, Inc.

MACINTOUCH RIC FORD

Readers relay RAM sagas, tips on other problems

This may seem a mundane topic, but its sneaky and damaging impact is making it hard to ignore: Customers and resellers have been tracing terrible system problems to RAM compatibility issues.

In one example, neither Apple nor the dealer could eliminate constant crashes, even after swapping motherboards for a savvy customer who had purchased an expensive, new Power Mac 8100/110. After months with a worse-than-useless system and a massive amount of wasted time and productivity, someone finally discovered that the "refresh rate" of the memory chips did not match that of the system. (Apple's technical specifications for the 8100 do not mention refresh rate.)

Plug and play isn't much fun when plugs look the same and gremlins are playing.

A better-documented requirement led to random data corruption and crashes in a Quadra 840AV when memory slower than 60 nanoseconds was mistakenly installed. The expert owner struggled for more than a year before finding the error.

Power Mac 8100/80 models had problems not only with early Apple cache cards but also with high-density dynamic RAM SIMMs. Strange procedures, such as switching DRAM vendors and removing SIMMs from the last few slots, sometimes helped. Apple reportedly changed the design in later 8100s to address this sensitivity (see MacWEEK, Jan. 2, Page 140).

Some Apple DIMMs (dual in-line memory modules) for Power Mac 9500/120 systems fail in the faster 9500/132 (see MacWEEK, July 10, Page 4), and upgrading these types of Macs to faster processor cards may create memory problems. As in the 8100/80 model, different DIMM slots have different proclivities to problems in the 9500/132. The most reliable slots are apparently the end slots at A6 and B6. The most problematic slot is reportedly A1.

The history of memory issues demonstrates how technical arcana can corrupt the Mac's user-friendliness. Even Mac experts get caught, and "plug and play" isn't much fun when all the plugs look the same and gremlins are doing the playing.

The best defense against memory problems is guaranteed Apple or third-party memory and some clues about where to look if your system goes to hell.

Bugs of note

The worst problems are memory, disk and file-system problems because they damage your data, but a bunch of other current bugs are also worth noting:

GORDON STUDER

- Several readers reported an incompatibility between Microsoft Corp.'s extension for patching Microsoft Office problems on Power Macs (see MacWEEK, July 10, Page 50) and the Global Village Toolbox extension (part of Global Village Communication Inc.'s fax software). Word 6 crashes when both extensions are loaded. There also may be other problems with the Microsoft patch, too. (A few readers reported problems with it, and I experienced frequent crashes on a Power Mac 6100 with the extension loaded, although neither Word 6 nor Global Village Toolbox was installed. Removing the extension seemed to help, but I did not determine positively that it was at fault.)
- A spate of reports about out-of-memory errors during start-up was a mystery until Denis-Jose Francois conducted an extensive debugging operation that eventually fingered Apple Menu Options 1.0.2. Removing it solved the problem.
- A few readers report crashes trying to run PowerTalk with the Desktop PrintMonitor from LaserWriter 8.3. Other readers were disappointed to find that Desktop PrintMonitor requires System 7.1.1 ("System 7 Pro") or later, and it will not work with System 7.1. Stephen Minard found that the Desktop PrintMonitor would not print within At Ease, holding off printing until he quit At Ease and returned to the Finder. Bob Aldrich was unable to use LaserWriter 8.3 with Novell Inc.'s GroupWise. Reverting to LaserWriter 8.2.2 fixed the problem.

Incompatible

- Apple's StyleWriter 1200 and Color StyleWriter 2400 printer drivers are incompatible with WorldScript I. Look for an updated driver in Apple Software Updates libraries on-line to get a fix.
- There is no apparent solution for someone who wants to use the new AppleCD 600 drives or non-Apple drives with a DOS Compatibility Card. The driver software supports only AppleCD 150, AppleCD 300 and AppleCD SC Plus hardware.
- According to a confidential Apple technical note, Ethernet controllers in Apple's first Power Macs — the 6100/60, 6100/66, 7100/66 and 8100/80 — have a problem that appears only during start-up on networks with heavy traffic. Workarounds include segmenting the network to reduce traffic, leaving the machines powered on or connecting the transceiver only after start-up. □

Comments on MacInTouch are welcome at (508) 897-2621. Please address e-mail to 72511,44 on CompuServe or ricford@macintouch.com on the Internet. The MacInTouch home page is at http://www.macintouch.com/~ricford/.

SOLUTIONS

From previous page

packet-switching network provides a variety of data communications services out of the company's Ann Arbor, Mich., base with the help of points of presence around the country. Nearly 200 Motorola Power Class modems are in use throughout the different divisions of the company and are available for external use by clients.

"We're just now beginning to provide 28.8 services, using both stand-alone and rackmounted modems, both for asynchronous and synchronous connections, including leased-line operations," said Cindy Mosley, director of network planning, whose department is responsible for the testing and deployment of the modems. "Our high-speed async connections have been good, though we've had some problems connecting to other brands," Mosley said. "We've also had some problems dialing down to 9,600 bps in synchronous modes. At higher speeds — 19.2 and 28.8 — they're generally reliable, though it's not been 100 percent. We're still working on isolating the problems."

Modems priced at the lower end include products from Archtek America Corp., AT&T Paradyne, Best Data Products, Boca Research Inc., Cardinal Technologies Inc., Hayes, Logicode Technology Inc., Motorola, Multi-Tech Systems, Practical Peripherals, Prometheus Products Inc., Supra Corp., Telebit, U.S. Robotics and Zoom Telephonics Inc.

This crowded pack includes the SupraFAXModem 288, the Cardinal 28.8 MVP288XF, the Practical Peripherals MacClass 288 Mini Tower II V.34 and the U.S. Robotics Sportster Mac & Fax V.34, with the Archtek SmartLink and Logicode Quicktel 2814XVM following close behind.

Features to look for on the lower-priced level include speed indicators, flash memory and bundled software.

Features to look for on this level, besides good speed and reliability, are LCDs for easy spot-checking of connection data, speed indicators, flash memory for easy upgrades, an Apple Remote Access CCL (Command Control Language) file, bundled software and whether the price includes a serial cable. V.32terbo and V.Fast Class support also give these modems (as it does those in each price range) backward compatibility with the earlier standards. Modems with voice-mail options are also available from companies such as Prometheus Products and U.S. Robotics.

Both corporations and end users find the modems in this group to be fast, reliable and economical. At Internet service provider World Access Network Inc. of Vancouver, Wash., for example, Cory Jones, computing service director, has installed five SupraFAXModem 288s to add to his seven Supra 14.4-Kbps modems already in place. He'll be adding four more 28.8-Kbps Supras in the next few weeks. They're all connected to a Xylogics Inc. Annex Terminal Server, linked up over Ethernet to their Unix host. "Our main consideration was reliability and quality of the connection, and the Supras have a good quality of connection," Jones said. "I've never had a problem with any of the 28.8s. They've never frozen up on us or died. We've set one of the registers so that when the caller hangs up, the modems automatically reinitialize to autoanswer mode."

Fast and inexpensive is the bottom line for some end users. Kin Seto, vice president of marketing at the Weilynne Group, a market research firm in San Carlos, Calif., bought two Cardinal modems, a 28.8-Kbps MVP288XF external modem for his office Duo, and a 28.8-Kbps PCMCIA card for his PowerBook 540 for when he's on the road. He got the external for a street price of $150, and the Mac serial cable was about $9 extra.

"I use the office [modem] to connect to the Internet and the one on the PowerBook to connect to the office's Lotus cc:Mail when I'm on the road," he said. "I also connect to America Online, CompuServe and other on-line services. The Cardinal's LEDs always let you know what's going on. So far, I've had no problems — and the price was right." □

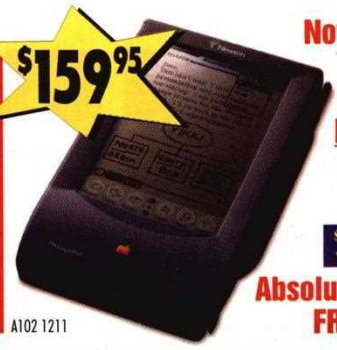
New ClubMac Catalog is now Available! Call 1-800-258-2622 and ask your salesperson for your FREE ClubMac Catalog subscription.

Authorized Catalog Reseller

Apple Newton MessagePad 100

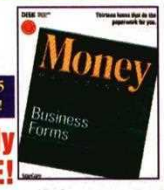
- Manage information, stay in touch with people, and exchange data with your computer
- Send or receive electronic mail, send a fax or "beam" to another Newton MessagePad
- Newton™ Recognition Architecture recognizes both printed and cursive handwriting
- Built-in applications that include a notepad, to-do list, datebook, and name file
- Features a fast 20 MHz Processor, improved 4mb ROM and 640K RAM.

$159.95



A102 1211

Now Bundled with Money Magazine Business Forms



$27.95 value!

Absolutely FREE!

MONITORS & GRAPHIC CARDS

21" MultiSync XE21

- 21" diagonal flat square technology
- 13.8" Viewable image size
- Mac Res:
  640 x 480 NI
  1024 x 768 NI
- Fine 0.28mm dot pitch
- Monitor Manager
- AccuColor, Digital controls
- Energy star compliant for true energy savings

THREE YEAR WARRANTY

$1829

21" XE21 (N026 1010) **$1829**
21" XP21 (N026 1011) **2199**

15" MultiSync XV15

Outstanding performance at an affordable price

- Larger sharper images that are easier to use
- Plug and Polay compatible for real performance advantages
- Energy star compliant for true energy savings
- 15" diagonal flat square technology
- 13.8" Viewable image size
- Mac Res: 1024 x 768 NI
- Fine 0.28mm dot pitch

THREE YEAR WARRANTY

$399*

14" XV14 (N026 1016) **$319**
15" XV15 (N026 1015) **$399***
15" XE15 (N026 1006) **$549**
15" XP15 (N026 1005) **599**

* After $25 Rebate

17" MultiSync XV17

Large Screen performance at an affordable price

- Perfect entry level business, small office/home office, home ducation/entertainment
- 17" diagonal flat square technology
- 15.6" Viewable image size
- Mac Res: 1024 x 768 NI
- PC Res: 1280 x 1024 NI
- Fine 0.28mm dot pitch
- FullScan capability
- On-Screen Manager

THREE YEAR WARRANTY

$759

17" XV17 (N026 1022) **$759**
17" XP17 (N026 1009) **1049**

IntelliColor Display/20e

The Radius IntelliColor Display/20e is part of the next generation in professional two-page color displays. It delivers unrivaled command of your desktop, from on-the-fly resolution switching to state-of-the-art color temperature control. Combined with Radius' IntelliColor software, it allows you to emulate 3 lighting conditions and user-adjustable color temperature, so you get more accurate color representation.

$1979

MONITORS

R016 1013 **PressView 21T Display System** (PV2102) 21" Trinitron, 640 x 480 to 1600 x 1200 ..... **$3099**
R016 1016 **SuperMatch 21•T XL Trinitron** (STD2102) 21" Trinitron, 1600 x 1200 ..... **$2099**
R016 1009 **IntelliColor Display/20e** (0461) 20" Trinitron, 640 x 480 to 1600 x 1200 ..... **$1979**
R016 1007 **PrecisionColor Display/17** (0460) 17" Trinitron, 640 x 480 to 1600 x 1200 ..... **$959**
R016 1030 **PrecisionView 17** (RD1705) 17" Trinitron, 1024 x 769 ..... **$899**

VideoVision Studio 2.0

With JPEG hardware compression and decompression for full-screen, full-motion recording and playback from a hard disk, VideoVision Studio combines the power and flexibility of the Macintosh with the ease and transportability of video tape.

R013 1018 **VideoVision Studio 2.0** (0500) Compatible with the PowerMac 8100 ..... **$3699**
R013 1020 **VideoVision Studio 2.0** Upgrade (0505) JPEG daughtercard **$1759**
R013 1026 **SpigotPower AV** (DV1630) Captures full-screen 24-bit color video up to 30 frames/60 fields per sec **$759**
R013 1065 **SpigotPro AV** (0514) captures full-screen 24-bit color video up to 30 frames/60 fields per sec **$1249**

PowerMac 8100 Compatible!

$3699

Thunder Series GRAPHIC ACCELERATORS

Super Resolution at Earth-Shaking Speed.

radius

Thunder Series Cards Blow the doors off Power Mac

FREE* ColorComposer software

Adobe charged

Three Thunder IV GX cards extend the 24-bit resolution of the PowerMac's built-in-video. Accelerated 24-bit color, built-in Photoshop acceleration, CMYK acceleration, hot-key resolution switching, pan and zoom, color composer and 10-bit DAC add up to make these cards the number one choice for image processing, compositing and illustration.

NEW PRODUCT

PowerMac 9500 Compatible PCI Cards

R013 1069 **PrecisionColor 8/1600** (0529) 8-bit support to 1600 x 1200 ..... **$479**
R013 1071 **Thunder 30/1600** (0528) 24-bit support to 1600 x 1200 ..... **$1149**
R013 1070 **Thunder 30/1152** (0538) 24-bit support 1152 x 870 ..... **$759**
R013 1073 **ThunderColor 30/1600** (0530) 24-bit support to 1600 x 1200 ..... **$1999**
R013 1072 **ThunderColor 30/1152** (0531) 24-bit support 1152 x 870 ..... **$1599**

R013 1059 **Thunder IV GX•1600** (0513) 24-bit support to 1600 x 1200 ..... **$2799**
R013 1060 **Thunder IV GX•1360** (0446) 24-bit support to 1360 x 1024 ..... **$2289**
R013 1061 **Thunder IV GX•1152** (0485) 24-bit support 1152 x 870 ..... **$1899**
R013 1062 **Thunder/24 GT** (0491) 24-bit support to 1152 x 870, PhotoEngine optional **$1329**
R013 1008 **PrecisionColor Pro 24X** (0429) 24-bit color, 640 x 480 to 1152 x 870, 13" to 21" displays **$1059**
R013 1010 **PrecisionColor Pro 24XK** (0430) 24-bit color, 1024 x 768, 16" and larger displays **$749**

*For a limited time, FREE ColorComposer software is included with each Thunder Series card.

PRINTERS & SCANNERS

EPSON

Epson ES-1200C Pro Mac Scanning System

HIGH DETAIL 4800 DPI, 30-BIT COLOR SCANNING MADE AFFORDABLE.

- 600 x 1200 dpi scanning resolution (up to 4800 dpi via interpolation)
- Epson's TruePass scanning technology
- Scans over ONE BILLION colors
- 8.5" x 11.67" scanning area
- Built-in image processing features
- Increased image quality with 30-bit color scanning

2 WARRANTY

MACUSER EDITORS' CHOICE 1994 WINNER

$1269

E045 1003 **Epson ES-1200C Pro-MAC** **$1269**
E045 1013 **Epson ES-1000C Pro-MAC** **$779**
E045 1004 **Transparency Unit** **$655**
E045 1008 **Automatic Document Feeder** **$465**

EPSON Stylus COLOR Inkjet Printer

E047 1012

Now you can print in vivid color with clarity never before possible in a personal color printer. At 360 dpi resolution blacks are blacker and at 720/360 dpi the color output is the sharpest available.

- Incredible 720 dpi color printing, optimized with special coated paper
- 360 dpi black print resolution
- Prints up to 16 million colors
- Serial interface
- Includes Mac driver software and a TWO Year Warranty

MACUSER EDITORS' CHOICE 1994 FINALIST

MACWORLD MW★★★★

$529

ACCELERATORS

IN STOCK!

DAYSTAR DIGITAL

100 MHz Turbo 601

100MHz

Compatible with Mac IIci, IIsi, IIvx, and Performa 600

DAYSTAR PowerPC UPGRADABLE

The Turbo 601 provides the best of both worlds. The Turbo 601 allows you to run your current software up to twice as fast, and it lets your run powerPC accellerated applications at full PowerPC speed - from 7 to 11 times faster!

$1499

DayStar 100 MHz Turbo 601 ..... **$1499**
Compatible with Mac IIci (D040 1048), IIsi (D040 1050), IIvx/vi/Performa 600 (D040 1052)

DayStar 100 MHz PowerPro 601 (D040 1043) **$1539**
Compatible with Quadra 900/950, 700 and other with Quadra style PDS

DayStar 66 MHz Turbo 601 ..... **$989**
Compatible with Mac IIci (D040 1039), IIsi (D040 1049), IIvx/vi/Performa 600 (D040 1051)

DayStar 66 MHz PowerCard 601 (D040 1040) **$635**

DayStar Turbo '040 (D040 1018) **$769**

3 Year WARRANTY

30 DAY MONEY BACK GUARANTEE

100% Compatible

PAPERPORT

FAST MAC V.34 FAX AND DATA MODEM

NEW! *FAST MAC V.34* 28.8Kbps External MODEM. 28.8Kbps data modem/14.4Kbps Fax modem with V.42bis/MNP5. Fax and data software and cable for the Macintosh, on-line services, power adapter and telephone cable included.

$139

NEW PRODUCT

B030 1007

$359

VISIONEER

PAPERPORT

The fastest way to get paper into your Mac.

If it's on paper, it's PaperPort-able!

The simple, super-small input device that converts your paper documents into electronic ones. With PaperPort's direct links to word processors, OCR software (included!), printers and fax modems, you can file, edit, annotate, print and send your documents directly to others. (V025 1002)

MACWORLD MW★★★★★

MACUSER EDITORS' CHOICE 1994 FINALIST

WARRANTIES: All items manufactured by ClubMac are returned to ClubMac for warranty repair. All other items carry manufacturer's warranty. **MONEY BACK GUARANTEE:** All products manufactured by ClubMac carry a 30 day money back guarantee. ClubMac extends all other manufacturers' return policies to its customers. Non-ClubMac products carry 30 day money back guarantee when specified. **RETURNS:** Call for RMA number! Any product that is returned WITHOUT an RMA number will be refused. ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

DISCOVER NOVUS VISA MasterCard American Express Cards

NO SURCHARGE!

SALES HOURS
M-F: 5:30am - 7:00pm
SAT: 7:30am - 4:00pm

Source Code 657315

ClubMac®

1-800-258-2622

Info, Sales (714)768-8130 • Tech Support (714)768-1490
24-Hr Fax (714)768-9354 • 7 Hammond, Irvine, CA 92718

Authorized Catalog Reseller

1-800-258-2622 1-800-CLUBMAC 1-800-258-2622

1-800-258-2622 1-800-CLUBMAC

CLUBMAC SUPER

CLUBMAC REMOVABLE STORAGE

CLUBMAC IS DOING IT AGAIN!

Once again, the first 1000 ClubMac SyQuest 200MB External SubSystems sold will include TWO 200MB Genuine SyQuest cartridges. OVER A $75.00 SAVINGS!

TWO FREE CARTRIDGES LIMITED SUPPLY

ClubMac 5.25" 200MB Removable

$468

C109 1090

Read, Write and FORMAT Compatible with 200MB, 88MB, and 44MB Cartridges.

FEATURING SyQuest® REMOVABLE TECHNOLOGY

MacUser ★★★★ February 1995

SyQuest 5 YEAR Warranty* ON CARTRIDGES

NOW SHIPPING WITH ACTIVE TERMINATION

Mac™OS COMPATIBLE

GENUINE SYQUEST CARTRIDGES

Part Number	Media	Qty 1	Qty 10	Qty 20
S198 1010	44MB	$43ea	$42ea	$41ea
S198 1011	88MB	$48ea	$47ea	$46ea
S198 1012	200MB	$76ea	$74ea	$72ea
S198 1013	105MB	$51ea	$50ea	$49ea
S198 1014	270MB	$62ea	$61ea	$60ea

* Warranty after first year, handled by SyQuest.

C109 1090	**5.25" ClubMac 200MB** *includes Two FREE Formatted 200MB Cartridge (Limited Supply)*	$468
C109 1002	**5.25" ClubMac 88MB** *includes One FREE Formatted 88MB Cartridge*	$349

While Supplies Last!

ZIP KILLER 105MB

105MB

ClubMac 3.5" 105MB Removable

$199

C109 1005

- Fast 14.5ms average seek time
- 3,600 RPM rotational speed
- Data transfer rate up to 4MB/sec (sync)
- 105 Cartridge is compatible with 270 SyQuest Drive
- IN STOCK NOW!

FREE CARTRIDGE

NOW SHIPPING WITH ACTIVE TERMINATION

Mac™OS COMPATIBLE

C109 1005	**3.5" ClubMac 105MB** *includes FREE Formatted 105MB Cartridge*	$199
C109 1004	**3.5" ClubMac 270MB** *includes FREE Formatted 270MB Cartridge*	$468

All SyQuest drives include SCSI Director formatting software, ONE FREE Formatted Cartridge, necessary cables for "plug-and-play" and documentation. All SyQuest drives include a 30-Day Money Back Guarantee and TWO Year Warranty. All SyQuest cartridges include a FIVE Year Warranty (warranty after the first year is handled by SyQuest).

DAT AND OPTICAL STORAGE DEVICES

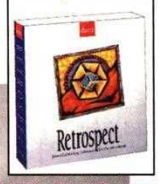
ClubMac Tape Backup Drives

C109 5011

$699

Backed by ClubMac's 30 DAY Money Back Guarantee

BUNDLED WITH Retrospect v2.1 Backup Software



2.0GB

FREE DAT TAPE

4.0GB

$899

C109 5010

NOW SHIPPING WITH ACTIVE TERMINATION

Mac™OS COMPATIBLE One Year Warranty

Verbatim

SONY

DAT MEDIA

V010 1018	Verbatim 90M Cartridge	$12
S100 1012	Sony 90M Cartridge	$12
V010 1043	Verbatim 120M Cartridge	$29
S104 1008	Sony 120M Cartridge	$29

OPTICAL MEDIA

V010 1021	Verbatim 1.3GB Optical Cartridge	$85
S100 1005	Sony 1.3GB Optical Cartridge	$85
V010 1012	Verbatim 230MB Optical Cartridge	$39
S100 1008	Sony 230MB Optical Cartridge	$39

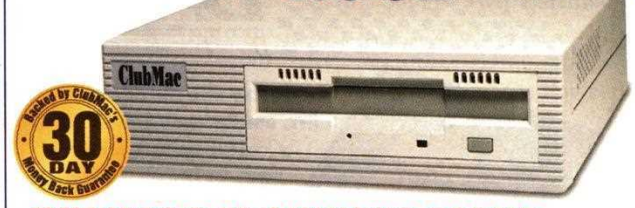
ClubMac 5.25" OLYMPUS 1.3GB

- 5.25" Olympus Optical Mechanism
- 29ms ave. seek time
- 3,500 RPM rotational speed

1.3GB

$1499

C109 5022



Mac™OS COMPATIBLE

NOW SHIPPING WITH ACTIVE TERMINATION

CLUBMAC 3.5" OLYMPUS 230MB

- 3.5" Olympus Optical Mechanism
- 28ms ave. seek time
- 4,200 RPM rotational speed

230MB

C109 5020

$579

MacUser RATED ★★★★ February 1995

SUMMER SALE!

CLUBMAC HARD DRIVE STORAGE

Internal Grand Prix
C109 1108

$1149

Incredibly Low Price

4.3GB
7200 RPM

Mac OS COMPATIBLE

NOW SHIPPING WITH ACTIVE TERMINATION

Backed by ClubMac's 30 DAY Money Back Guarantee

Quantum

Internal Fireball
C109 1202

$389

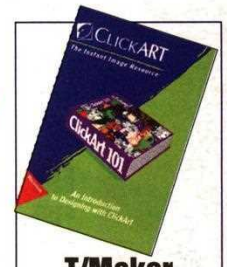
365MB

$139

Internal Lightning
C109 1217

1.0GB

NOW SHIPPING WITH ACTIVE TERMINATION



T/Maker ClickArt FREE
With the purchase of a Quantum 365 Lightning Drive (Internal or External)

	Part No.	Internal	Part No.	External
1080MB Fireball 12ms	C109 1202	$389	C109 1203	$449
2200MB Capella 8.5ms	C109 1213	$799	C109 1212	$859
4300MB Grand Prix 8.6ms	C109 1159	$1149	C109 1108	$1209
4300MB Atlas 8ms	C109 1122	$1499	C109 1121	$1559

	Part No.	Internal	Part No.	External
365MB Lightning 11ms	C109 1217	$139	C109 1218	$199
420MB Trailblazer 14ms	C109 1204	$185	C109 1205	$245
540MB Fireball 12ms	C109 1200	$199	C109 1201	$259
730MB Lightning 11ms	C109 1154	$259	C109 1102	$319

3.5" HALF HEIGHT & LOW PROFILE (LP)

Unformatted Capacity	Model	Description	Part No.	Internal	Part No.	External
2.4GB	32430N	Hawk 2 LP	C109 2211	$899	C109 2112	$959
4.3GB	15230N	Hawk 4	C109 2212	$1099	C109 2113	$1159
2.5GB	32550N	Barracuda 2 LP	C109 2203	$1069	C109 2109	$1129
4.3GB	15150N	Barracuda 4	C109 2207	$1499	C109 2106	$1559

5.25" FULL HEIGHT

9.1GB	410800N	Elite-9			C109 2110	$2599

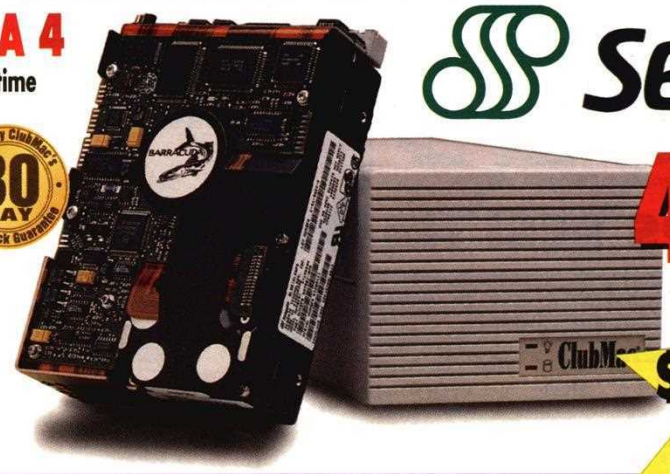
BARRACUDA 4
8.5ms average seek time
7,200 RPM

Seagate 5 YEAR Warranty

Mac OS COMPATIBLE

NOW SHIPPING WITH ACTIVE TERMINATION

Backed by ClubMac's 30 DAY Money Back Guarantee



Seagate

4.3GB

$1559

CLUBMAC CD-ROM DRIVES

ClubMac 2X CD-ROM

- 300KB/sec data transfer rate
- 350ms average access time
- Flip Top Lid
- LED light, headphone jack
- Volume control
- Light weight
- CharisMac's CD AutoCache driver software
- ONE Year Warranty

$99

Mac OS COMPATIBLE

ClubMac NEW PRODUCT

Backed by ClubMac's 30 DAY Money Back Guarantee

C109 9550

ClubMac 2X CD-ROM

- 300KB/sec data transfer rate
- 320ms average access time
- Caddy-less design
- LED light, headphone jack and RCA jacks
- CharisMac's CD AutoCache driver software
- ONE Year Warranty

$129

Mac OS COMPATIBLE

Backed by ClubMac's 30 DAY Money Back Guarantee

C109 9543

ClubMac 4X CD-ROM

- 600KB/sec data transfer rate
- 190ms average access time
- Caddy-less design
- LED light, headphone jack and RCA jacks
- CharisMac's CD AutoCache driver software
- ONE Year Warranty

$229

Mac OS COMPATIBLE

Backed by ClubMac's 30 DAY Money Back Guarantee

C109 9546

CD-ROM BUNDLE C109 1015

- Grolier1995 Multimedia Encyclopedia
- U.S. Atlas & World Atlas
- San Diego Zoo Animals
- Wyatt Earp
- QuickShot speakers & Koss Headphones (5 Titles/4 CDs)

CLUBMAC CD-ROM BUNDLE $100*

*with any CD-ROM Drive purchase

WARRANTIES: All items manufactured by ClubMac are returned to ClubMac for warranty repair. All other items carry manufacturer's warranty. **MONEY BACK GUARANTEE:** All products manufactured by ClubMac carry a 30 day money back guarantee. ClubMac extends all other manufacturers' return policies to its customers. Non-ClubMac products carry 30 day money back guarantee when specified. **RETURNS:** Call for RMA number! Any product that is returned WITHOUT an RMA number will be refused. ALL PRODUCT INFORMATION AND PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. NOT RESPONSIBLE FOR TYPOGRAPHICAL ERRORS.

DISCOVER NOVUS VISA MasterCard

NO SURCHARGE!

SALES HOURS
M-F: 5:30am - 7:00pm
SAT: 7:30am - 4:00pm

Source Code 657315

ClubMac®

1-800-258-2622

Authorized Catalog Reseller

Info, Sales (714)768-8130 • Tech Support (714)768-1490
24-Hr Fax (714)768-9354 • 7 Hammond, Irvine, CA 92718

1-800-258-2622 1-800-CLUBMAC 1-800-258-2622

THE APS ADVANTAGE

- 30-Day No-Hassle MBG
- Toll-Free Support
- Manufacturer Backed Warranties
- Factory Direct Quality
- Rapid Repair Return
- 24-hr Product InfoFax

Best Technical Support

1994 Consultants Choice Awards • • • • • • • • Macintosh Consultants Network

MACWORLD MW SERVICE HERO

MACWORLD 1993 World Class Award Winner

GO WITH THE WINNER

WOW! $229.95 *Internal configuration*

APS Q 730

- ✔ Up to 700MB formatted capacity
- ✔ Outstanding value! – Only $0.33 per MB
- ✔ 2-year warranty

MacUser ZD LABS ★★★★½

APS Q 2.0

- ✓ Over 2GB formatted capacity
- ✓ Optimized for workstations and servers
- ✓ 2-year warranty

$899.95 *Internal configuration*

MacUser ZD LABS ★★★★

APS MS 1.0

- ✓ 1GB formatted capacity
- ✓ 7200 rpm spindle speed for great performance
- ✓ 5-year warranty

$599.95 *Internal configuration*

APS SCSI HARD DRIVES

516-2050MB

	Model	Capacity	Internal	SR2000
MacUser ZD LABS ★★★½	APS Q 540[3] Quantum 540 Fireball mechanism	516MB	$199.95	$299.95
MacUser ZD LABS ★★★★½	APS Q 730[2] Quantum 730 Lightning mechanism	699MB	229.95	299.95
	APS Q 840[3] Quantum 840 Trailblazer mechanism	811MB	299.95	399.95
	APS Q 1080[3] Quantum 1080 Fireball mechanism	1042MB	389.95	489.95
	APS MS 1.0[5] Micropolis 4210 Mechanism	1001MB	599.95	699.95
MacUser ZD LABS ★★★½	APS ST 1.0[5] Seagate ST 31230N Hawk mechanism	1010MB	549.95	649.95
MacUser ZD LABS ★★★½	APS Q 1.0[5] Quantum Atlas XP31070 mechanism	1025MB	699.95	799.95
MacUser ZD LABS ★★★½	APS MS 2.0[5] Micropolis 4221 mechanism	1955MB	899.95	999.95
	APS ST 2.0[5] Seagate ST 32550N Barracuda	2047MB	999.95	1099.95
MacUser ZD LABS ★★★★	APS Q 2.0[5] Quantum Atlas XP32150 mechanism	2050MB	899.95	999.95
	APS MS 2.0AV[5] Micropolis 4221AV mechanism	1955MB	999.95	1099.95

4064-8669MB

	Model	Capacity	Internal	SR2000
MacUser ZD LABS ★★★★	APS MS 4.0[5] Micropolis 3243 mechanism	4064MB	$1399.95	$1499.95
	APS MS 4.0AV[5] Micropolis 3243AV mechanism	4064MB	1499.95	1599.95
MacUser ZD LABS ★★★½	APS ST 4.0[5] Seagate ST 15150N mechanism	4094MB	1499.95	1599.95
	APS Q 4.0[5] Quantum Atlas XP34300 mechanism	4101MB	1399.95	1499.95
	APS MS 9.0[5] Micropolis 1991 mechanism	8669MB	2299.95	*2499.95
	APS MS 9.0AV[5] Micropolis 1991AV mechanism	8669MB	2399.95	*2599.95
MacUser ZD LABS ★★★★	APS ST 9.0[5] Seagate ST410800N mechanism	8669MB	2499.95	*2699.95

APS DISK ARRAYS (Level 0-5)

Model	Capacity	RAID LEVEL	Price
ARRAID S2/5400[5]	2GB	0 (Striped)	$1299.95
ARRAID M1/7200[5]	1GB	1 (Mirrored)	1599.95
ARRAID S2/7200[5]	2GB	0 (Striped)	1599.95
ARRAID M2/7200[5]	2GB	1 (Mirrored)	2399.95
ARRAID S4/7200[5]	4GB	0 (Striped)	2399.95
ARRAID S8/7200[5]	8GB	0 (Striped)	3299.95
NEW FROM APS ARRAID 58/7200[5]	8GB	5 (Parity)	4999.95

DATerm™ patent pending
Copyright © 1995 APS Technologies
Internal drives for Quadra 800 and Centris 610 available
Listed capacities are formatted
Full Height cases include SCSI Sentry FREE!
1-5 Denotes length of manufacturer's warranty in years
** External case is special Full Height only*

PORTABLE DRIVES

	Model	Capacity	Internal	**AC Only
	APS Q 341[1]	326MB	$299.95	N/A
NEW LOWER PRICE	APS Q 514[1]	491MB	379.95	N/A
	APS T 504[1]	504MB	379.95	NEW FROM APS $479.95*
	APS T 800[1]	773MB	599.95	NEW FROM APS 699.95*

** AC/DC available for $50.00 extra*
***SR 1000 AC only enclosure*

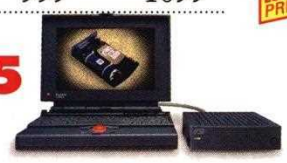
ARRAID systems from APS are high performance, easy-to-use disk array storage solutions.

- ✔ Performance
- ✔ Cost effective value
- ✔ Plug-and-play convenience
- ✔ 5-year warranty

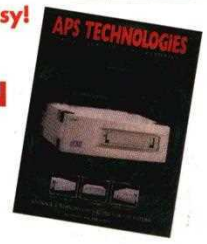
ARRAID is RAID Made Easy!

APS T 800 $599.95

NEW FROM APS *Internal configuration*



CALL FOR YOUR FREE SUBSCRIPTION



APS TECHNOLOGIES

1-800 677-3294 APS Technologies, 6131 Deramus, Kansas City, MO 64120

Now visit our Web Page at http://www.apstech.com/

THE BEST BACKUP VALUE ONLY $499.95

External configuration

OPEN 24 HOURS A DAY SEVEN DAYS A WEEK! 24 x7

PRICELESS SUPPORT!

APS HyperTape™

- ✓ 2GB capacity without compression
- ✓ Up to 4GB capacity with software compression
- ✓ Includes Retrospect v 2.1 FREE!
- ✓ 2-year warranty

Retrospect included free with all DAT, DLT & HyperTape drives

APS 1.3GB MO

- ✓ 4MB cache helps speed data transfer rates to 1.46MB per second
- ✓ New low price

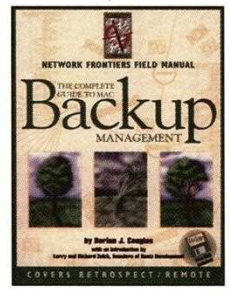
$1799.95

External configuration

APS HyperDAT

- ✓ DDS-2 technology
- ✓ Capacity up to 8GB*
- ✓ Transfer rates up to 28MB per minute
- ✓ Includes Retrospect v 2.1 FREE!
- ✓ 2-year warranty

The Complete Guide to Mac Backup Management



FREE!

WHEN YOU PURCHASE AN APS HYPERDAT OR DLT DRIVE!

OR PURCHASE THE BOOK FOR ONLY $4.95 WHEN YOU BUY AN APS DAT[2]

$999.95

External configuration with tape!

APS TAPE DRIVES

Model	Capacity*	Internal	External
APS HyperTape[2]	2GB+	—	$499.95
APS DAT[2][2]	4GB+	$749.95	799.95
APS HyperDAT[2]	8GB†	949.95	999.95
APS DLT20XL[2]	30GB†	—	3999.95
APS DLT40[2]	40GB†	—	5999.95

NOW WITH TWICE THE CAPACITY FOR THE SAME PRICE

NEW FROM APS

*Actual data compression and tape capacity vary greatly depending on the type of data recorded, other system parameters and environment.
† 2:1 Hardware data compression.
✚Native capacity without data compression.
All APS DAT, DLT & HyperTape drives include Retrospect by Dantz

Tape Media	*1-4*	*5-19*	*20+*
3080XLF (HyperTape)	*$34.95*	*$33.95*	*$31.95*
60-Meter	*8.95*	*7.95*	*6.95*
90-Meter	*9.95*	*8.95*	*7.95*
120-Meter (DDS-2)	*21.95*	*20.95*	*19.95*
DLT20XL Data cartridge	*49.95*	*—*	*—*
DLT40 Data cartridge	*109.95*	*—*	*—*
DLT20 3PK cartridges	*119.95*	*—*	*—*
DLT40 3PK cartridges	*299.95*	*—*	*—*

BEST VALUE!

APS REMOVABLE DRIVES

Model	Capacity	SR2000
APS SQ 3270[2]	255MB	MacUser/ZD LABS ★★★★ $479.95
APS SQ 5200[2]	194MB††	MacUser/ZD LABS ★★★★½ 499.95

MacUser Recommends

†† Does not format 44MB & 88MB cartridges
1-5 Denotes length of manufacturer's warranty in years
All SyQuest drives include 1 FREE cartridge

SyQuest Media	*1-4*	*5-9*	*10+*
SQ-400 (44MB)	*$42.95*	*$41.95*	*$39.95*
SQ-800 (88MB)	*48.95*	*47.95*	*45.95*
SQ-2000 (200MB)	*75.95*	*74.95*	*72.95*
SQ-310 (105MB)	*55.95*	*54.95*	*52.95*
SQ-327 (270MB)	*62.95*	*61.95*	*59.95*

Prices listed are for unformatted media

BEST VALUE!

APS CD-ROM DRIVES

Model	SR2000
APS T 3601[1] QUAD-SPEED	$349.95

NEW LOWER PRICE

APS MO DRIVES

Model	SR2000
APS 230MB MO[2] *New Lower Pricing!*	MacUser/ZD LABS ★★★★ $599.95
APS 1.3GB MO[1] *New 4MB cache*	1799.95

NEW FROM APS

1-5 Denotes length of manufacturer's warranty in years
All MO drives include 1 FREE cartridge

Sony MO Media	*1-4*	*5-9*	*10+*
128MB cartridge	*$28.95*	*$26.95*	*$24.95*
230MB cartridge	*38.95*	*36.95*	*34.95*
1.3GB cartridge	*88.95*	*86.95*	*84.95*

BEST VALUE!

APS INTERNATIONAL
Global Storage Resource
APS Intl. Sales Line (816) 920-4109
On parle français au (816) 920-4135
Se habla español en (816) 920-4136
Si parla l'italiano in (816) 920-4137
Wir sprechen Deutsch (816) 920-4138
どうぞご遠慮なく日本語の
ファックスでもお申込み下さい。
24-Hour Intl. Fax: (816) 483-3077

Same day shipping for personal checks (Restrictions apply)

VISA MasterCard DISCOVER NOVUS TeleCheck

Visa, MasterCard, Discover, American Express (No Surcharge)

OPEN 24 HOURS A DAY! 7 DAYS A WEEK!

- Hard drives include brackets, cables, cords and LEDs required for operation with the specified Macintosh where applicable. All hard drives from APS Technologies come preformatted with Apple's System 7.0.1 software and APS Technologies' APS POWERTOOLS SCSI formatter/hard disk partitioner.
- All external drive products and cases come with a premium 25 x 50 SCSI cable.
- International customers must pay for all shipping charges.
- Refused orders subject to restocking fee.
- Toll-free Technical Support hours are 8 am to 8 pm Monday thru Friday, 9 am to 5 pm Saturday, Central Time.

- 30-day money-back guarantee • (Excluding opened software). Your risk is the cost of shipping.
- Drive-for-Drive Repair or Replacement Warranty • The warranty length is denoted by the superscripted number next to each drive model. APS will, at its discretion, replace or repair products found to be defective according to the terms of the product's warranty.
- All prices and specifications are subject to change without notice.

1-800 677-3294

APS Technologies

MACWORLD MW SERVICE HERO

DIRECTTech

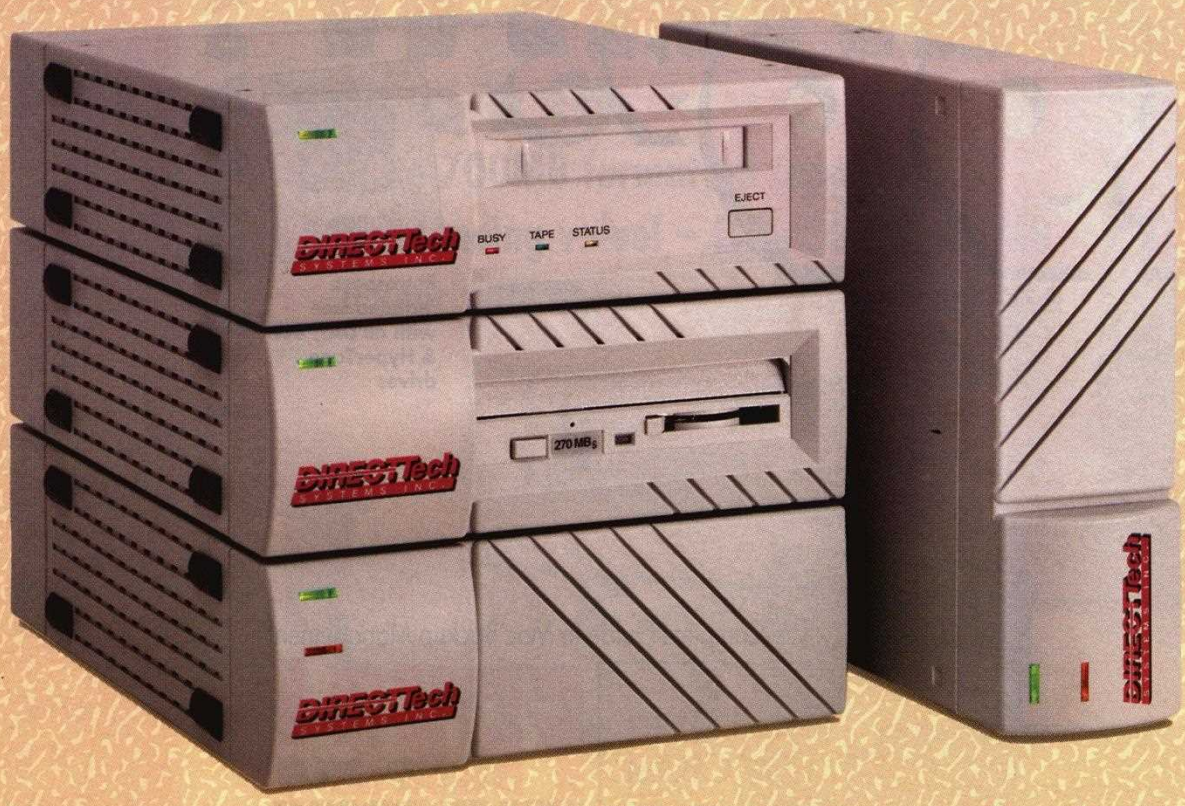
MICROPOLIS

Seagate

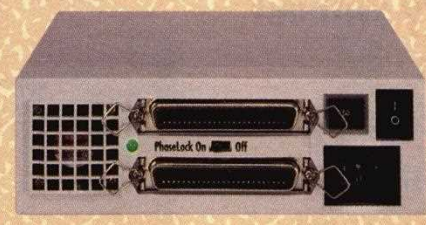
HEWLETT PACKARD

Quantum

SyQuest



Phaser Enclosures can also be set on end.



PhaseLock Termination™

All Phaser-I Enclosures feature PhaseLock Termination, the latest in active termination technology, exclusively from DirectTech. Put an end to your SCSI headaches. PhaseLock monitors and regulates your SCSI chain and eliminates any termination problems.

NOW WITH ACTIVE TERMINATION
Kiss Your SCSI Troubles Goodbye

VISA MasterCard

No charge for Visa or Mastercard.

Government, Corporate, and University P.O.s welcome!

- 30-day money-back guarantee on all drives.
- Refused orders subject to restocking fee.
- RMA No. required for all returns.

Prices, terms, and availability are subject to change without notice.

All tradenames and trademarks are the property of their respective companies.

THE ALL NEW (STACKABLE) PHASER LINE OF ENCLOSURES

A DIRECTTECH EXCLUSIVE...AVAILABLE FOR ALL 3.5" EXTERNAL DRIVES

HARD DRIVES

ALL DRIVES ARE PREFORMATTED, TESTED AND PACKAGED WITH SCSI MANAGER 4.3 COMPATIBLE DRIVERS. EXTERNAL DRIVES INCLUDE CHOICE OF 25-50 OR 50-50 PIN CABLE.

Capacity	Model No.	Mechanism	Size	Seek	RPM	Warranty	Internal	PHASER-I
365 MB	DT-365LT	Quantum	3.5"	11 ms	4500	2 yrs	$139	$215
540 MB	DT-540LT	Quantum	3.5"	11ms	4500	2 yrs	$195	$270
730 MB	DT-730LT	Quantum	3.5"	11 ms	4500	2 yrs	$229	$305
1.0 GB	DT-1080FB	Quantum	3.5"	9.5 ms	7200	5 yrs	$449	$525
1.05 GB	DT-31230	Seagate	3.5"	9.0 ms	5400	5 yrs	$515	$595
2.0 GB	DT-4221	Micropolis	3.5"	8.5 ms	7200	5 yrs	$895	$970
2.0 GB	DT-32150	Quantum	3.5"	8.0 ms	7200	5 yrs	$999	$1,075
2.0 GB	DT-2490	HP	3.5"	9.0 ms	6400	5 yrs	$1,099	$1,175
2.1 GB	DT-32550	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$989	$1,065
2.1 GB	DT-32550W	Seagate Barracuda Wide	3.5"	8.0 ms	7200	5 yrs	$1,075	$1,190
4.3 GB	DT-3243	Micropolis	3.5"	8.5 ms	7200	5 yrs	$1,395	$1,470
4.3 GB	DT-15150	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,465	$1,540
4.3 GB	DT-15150W	Seagate Barracuda Wide	3.5"	8.0 ms	7200	5 yrs	$1,550	$1,699
4.3 GB	DT-4280	Quantum GP	3.5"	8.0 ms	7200	5 yrs	$1,159	$1,235
9.0 GB	DT-1991	Micropolis	5.25"	12 ms	5400	5 yrs	$2,195	$2,295
9.0 GB	DT-410800	Seagate Elite 9	5.25"	11 ms	5400	5 yrs	$2,215	$2,315

AUDIO/VIDEO TUNED HARD DRIVES

Capacity	Model No.	Mechanism	Size	Seek	RPM	Warranty	Internal	PHASER-I
1.05 GB	DT-31230AV	Seagate	3.5"	9 ms	5400	5 yrs	$515	$595
2.0 GB	DT-4221AV	Micropolis	3.5"	8.5 ms	7200	5 yrs	$945	$1,020
2.1 GB	DT-32550AV	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$989	$1,065
4.3 GB	DT-3243AV	Micropolis	3.5"	8.5 ms	7200	5 yrs	$1,445	$1,520
4.3 GB	DT-15150AV	Seagate Barracuda	3.5"	8.0 ms	7200	5 yrs	$1,465	$1,540
9.0 GB	DT-1991AV	Micropolis	5.25"	12 ms	5400	5 yrs	$2,245	$2,345
9.0 GB	DT-410800AV	Seagate Elite 9	5.25"	11 ms	5400	5 yrs	$2,215	$2,315

SYQUEST

INCLUDES ANUBIS FORMATTING SOFTWARE AND ONE CARTRIDGE

Capacity	Model No.	Internal	PHASER-I
88 MB	SQ5110C	$305	$365
200 MB	SQ5200	$420	$480
270 MB	SQ3270	$420	$470

TAPE

INCLUDES A FREE COPY OF RETROSPECT AND ONE TAPE

Capacity	Model No.	Format	PHASER-I
2 GB	HP-35470	4mm	$995
4-8 GB	Sony-5000	DDS-2	$1,165
4-8 GB	HP-1533A	DDS-2	$1,360
5-10 GB	Exabyte-8505	8mm	$2,275
10-20 GB	DLT-2000	DLT	$3,599

OPTICAL

INCLUDES ANUBIS FORMATTING SOFTWARE AND ONE CARTRIDGE

Capacity	Model No.	Seek	PHASER-I
230 mb	Fujitsu	30 ms	$675
1.3 GB	HP-C1716	23 ms	$2,099
1.3 GB	Maxoptix T-III	18 ms	$2,199

CD ROM

INCLUDES SOFTWARE

JVC Personal Archiver (2X)	$1,699
Call about 4X drives.	

Make Your Own CDs!
Includes Software and Cabling

SPECIAL!!!

HERE'S YOUR BEST BUY.

The Micropolis 2.0 GB with a8.5 ms seek time. and a five year warranty. You can't beat this drive.

$899.00

ORDER TODAY!
(Internal Configuration)

DISK ARRAYS

Capacity	Model No.	Raid Level	External
2.0 GB	DT-31200-2AR	0, 1	$ Call
4.0 GB	DT-32550-2AR	0, 1	$ Call
8.0 GB	DT-15150-2AR	0, 1	$ Call

These drives are perfect for Videovision.

MEDIA

Type	Price	Type	Price
Syquest 44	$42	Optical 128 MB	$26
Syquest 88	$48	Optical 230 MB	$30
Syquest 105	$54	Optical 1.0 GB	$100
Syquest 200	$76	Optical 1.3 GB	$95
Syquest 270	$60		

CALL: 1-800-279-5520

INTERNATIONAL ORDERS CALL: (612) 941-2616 • FAX ORDERS: (612) 942-0430

DirectTech Systems, Inc. • 7625 Golden Triangle Drive, Suite R • Eden Prairie, MN 55344

CRA SYSTEMS, INC. 800/375-9000

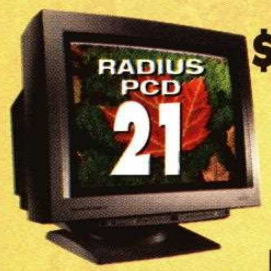
radius™ SUPERMAC™

CRA SYSTEMS, INC. 800/375-9000

AWARD WINNING PRODUCTS UP TO 80% OFF!

DISPLAYS

TWENTY ONE INCH DISPLAYS



Retail $2599

Radius PrecisionColor Display 21

$1499* Supports 1600x1200 pixel resolution

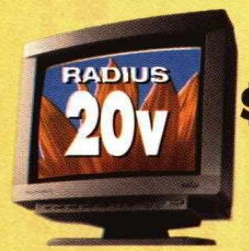
- 1600x1200 to 1024x768 • Flat screen
- Razor sharp .28 dot pitch Ideal solution for professionals requiring maximum screen area, color accuracy, and sharpness.

*With qualifying videocard, accelerator, or computer purchase

SuperMac PressView 21	$2899
Radius 21 inch Grayscale Display	$799
RasterOps 21 inch Grayscale Display	$899

TWENTY INCH DISPLAYS

TWO PAGES FOR THE COST OF ONE!



Retail $1999

While Supplies Last!–Your Choice of...

$999* Best Screen Uniformity!

Radius PrecisionColor Display 20v

- Multiple resolutions1280x1024 to 640x480
- Mac/PC compatible
- Works with most any Macintosh built-in video
- "Best Overall Screen Uniformity" – MacUser

SuperMac or E-Machines 20 $999*

- 1152x870 to 1024x768 • Flat screen
- Shadow Mask Tube • Built in video support

*With qualifying videocard, accelerator, or computer purchase

Radius 20 inch Grayscale Display	$699

Retail $2399

Radius IntelliColor Display 20

Limited Quantities!

$1699* The #1 Selling 20 inch Trinitron!

- Top rated 20" Trinitron, Best Money Can Buy
- MacUser, MacWorld, MacWeek Editor's Choice
- 1600x1200 to 640x400

*With qualifying videocard, accelerator, or computer purchase

SEVENTEEN INCH DISPLAYS

Retail $1299

SuperMac/E-Machines T16IIMR

Limited Quantities!

$699* Editor's Choice!

- High Grade Studio Trinitron Series
- .25mm multi-resolution • Editors Choice
- 1024x768 to 640x480 resolutions

SuperMatch 17T	$799*
Radius PrecisionColor Display 17	$CALL

*With qualifying videocard, accelerator, or computer purchase

PIVOT DISPLAYS

$399 With purchase of video card.

Radius Color Pivot LE

We have cards for **SE/30, LC, IIsi,** Nubus, and Quadras

Precision Color Pivot	$599
Grayscale Pivot	$399
Radius Full Page Display	$299

VIDEO CARDS VIDEO CARDS VIDEO CARDS

21" RESOLUTIONS

24 BIT	PCI Cards	$CALL
	Radius PrecisionColor 24X	$599
	Radius PrecisionColor Pro 24X	$699
	All Thunder IV's	$CALL
	All Thunder II's	$CALL
	Thunder 24 (DSP available)	$899
	SuperMac Ultura LX with DSP acceleration	$1299
	RasterOps Horizon 24	$1499
	RasterOps 24XLTV	$1499
	RasterOps PaintBoard Pro	$899
	RasterOps PaintBoard Turbo XL	$799
	RasterOps Prism GT	$CALL
8 BIT	Radius PrecisionColor 8XJ	$399
	SuperMac DoubleColor LX	$399
	SuperMac Spectrum 8/24 PDQ	$399

20/19" RESOLUTIONS

24 BIT	PCI Cards	$CALL
	SuperMac Spectrum 24 Series V	$599
	Radius PrecisionColor 24XK	$499
	Radius PrecisionColor Pro 24XK	$599
	SuperMac Futura MX	$499
	RasterOps PaintBoard Lightning	$CALL
	RasterOps Prism 24	$CALL
8 BIT	SuperMac Spectrum 8 Series III	$199

17/16" RESOLUTIONS

24 BIT	Radius PrecisionColor 24XP	$199
	Radius PrecisionColor Pro 24XP	$CALL
	SuperMac Futura SX	$299
	SuperMac Futura II SX w/Ethernet	$399

APPLE VIDEO CARDS

Apple 8•24	$CALL
Apple 8 Bit	$99

ACCELERATORS

68040 BLOW OUT! from $299**

Daystar Products	$CALL
Radius Rocket 33MHz w/FPU	$399**
Radius Rocket 40MHz w/FPU	$499**
Stage Two Rocket 40MHz w/FPU -includes SCSI II Booster and RocketShare	$899
SCSI II Booster (up to 4x faster)	$249
PhotoBooster for Rocket	$299
RocketShare	$299

**With purchase of any Rocket peripheral

24 BIT VIDEO

RADIUS/SUPERMAC/APPLE

Grab 'em while supplies last!

Stop wasting valuable time and money waiting on slow screen redraw! Upgrade your Mac or PowerMac to ACCELERATED PHOTO-REALISTIC 24-bit video performance!

Radius PhotoBooster $199

Retail $999

- Twin AT&T 3210 66MHz DSPs
- Accelerates Photoshop Filters
- Up to 10x faster than a Quadra 950
- MacUser Editor's Choice

Photoshop Deluxe Edition	$299
Thunder DSP daughterboard	$299
Radius PhotoEngine	$CALL

Radius PowerView $199

Allows most PowerBooks and the Classic II to support displays and projectors.

SuperMac SuperView	$299
Similar to Radius PowerView but also supports TV!	
SuperMac Simply TV	$CALL
Allows big screen TV use with LC series, Performa, Quadra, or Color Classic!	

MULTI MEDIA

Spigot II Tape $499!

Full Motion Video – Lowest Price Ever!

VideoSpigot Card from $99* *retail price $599*

VideoVision Studio Upgrade	$CALL
VideoVision Studio	$CALL
VideoVision Studio Array	$CALL
TrueVision Targa 2000	$CALL
VideoSpigot Nubus/LC/IIsi	$99*
Spigot and Sound/VideoSpigot Pro	$299/399
MacRecorder	$149
Adobe Premiere	$99**

**With computer or video purchase *With purchase of Premiere

QUADRA BLOW OUT! $599*

Macintosh Quadra 605/LC 475 4/0

- Lowest price ever! • NEW with 1 year warranty!
- 50/25 MHz 68LC040 processing power
- Built-in video supports up to 21" color monitors
- 4MB RAM with Burst-Mode access (expandable to 36MB)
- MultiMedia ready–Just plug in CD-ROM • Supports stereo sound
- ***Call for complete system discount!*** **CPU Only*

Upgradeable to PowerMac

"Never before has Apple offered so much performance for so little money" MW ★★★★

"It's hard to go wrong buying one..." — *MacWorld*

PRINTERS

TABLOID LASER PRINTER

QMS 860 Hammerhead 600-1200 dpi

- Full-Bleed 11"x17"
- PostScript Level 2
- 8ppm heavy-duty Canon engine

from **$1999**

Xante Accel-A-Writer 8200	$CALL
QMS Color Laser-all models	$CALL
Hewlett-Packard 4MV	$CALL
GCC SelectPress 1200	$4999

- 1 year factory warranty • true 1200x1200 dpi resolution for camera ready output • 12"x19" tabloid printing • 270MB internal hard disk • 285 PostScript fonts

MacUser ★★★★½ *"Best Output" – MacUser* *" Consistently good output" – Seybold Reports*

GCC WriteMove II $199*

MacUser ★★★★½ • *MacUser— 4 1/2 mice* • *MacWeek — ★★★★* *portable printer only* **with CPU purchase*

LaserWriter OEM Apple PostScript **$499**

MAC CPUs

PowerMacs	$CALL
Quadra 630	$CALL
Quadra (all other models)	$CALL
PowerBooks/Duos	$CALL
All Apple Parts	$CALL

24 hour turnaround available

CRA SYSTEMS

Monday thru Friday 9AM to 8PM CST
Saturday 10AM-4PM *Sales Dept. Only*

Domestic Sales 800.375.9000
Fax 817.754.2345
Consultants/Dealers 817.754.2131
International Sales 817.754.2120

800/375-9000

CRA Systems, Inc.
300 South 13th St., Waco, TX 76701

Se hace pedidos internacional.
Nous acceptons des commandes internationales.
Internationale Handlerkonditionen.

Prices reflect 2% cash discount. Not liable for typographical errors. All shipping charges for COD orders to be secured by credit card. Dealers and consultants call for quantity pricing. We ship anywhere.

CPUs

Apple WGS 95 32/2gb, DAT, A/share Pro	$5999
Grab this one! *Dealer Cost $9290*	
Mac Plus 1/0	$149
Mac SE 1/20	$299
Mac Classic 2/40	$499
Mac II 0/0	$299
Mac IIcx 0/0	$499
Mac IIci 0/0	$699
Mac IIsi 5/80	$699
Quadra 700, 900, 950	$CALL
Quadra 800, 840AV	$CALL
PowerMacs	$CALL
All other CPU's	$CALL

Cards-Network

Apple Token Talk 1/4-4/16	$299/$499
DCA Mac Irma 3270	$499
DCA Mac Irma 3270 for SE	$499
EtherNet boards for SE/SE30	$99
EtherNet LC thin coax	$99
Shiva FastPath 4 Gateway	$999

Cards-Misc.

Apple IIe emulation for LC	$149
Apple IIci cache card	$99
Apple serial Nubus card	$199
IIsi Nubus or PDS adapter card	$99
PLI Quick SCSI Nubus card	$299
Orange Micro 286 board	$199

Cards-Video

Apple 8•24 GC	$449
Apple 8•24	$399
Apple 8 bit for 13"-14"	$199
Apple Portrait/Two Page	$149/$249
RasterOps 104 24bit TPD	$299
RasterOps 24XLi	$799
RasterOps 24L with 801	$699
RasterOps 708+ 8bit for 20"	$299
RasterOps 24XLTV	$2399
SuperMac Spectrum 24bit for 20"	$599
E-Machines Colorlink EX/T	$299
E-Machines Colorlink SX/T	$499
E-Machines T19 Card for SE/30/IIsi	$299

Drives

Apple 5.25 Ext. PC drive w/SE or Nubus	$99
PowerBook 20mb/40mb/80mb	$89/$129/$199
Dayna 360k/1.2mb-740K/1.44mb	$499
Exabyte 8mm 5gb tape backup	$1299
Maxtor 800mb WORM drive	$499
NEC CDR 72/73/74 CD drive	$199/$299/$399
Ricoh HyperSpace 600mb Read/Optical	$1799

Input/Output

Apple Scanner	$499
HP Scanjet	$399
Howtek ScanMaster III+	$2999
Mirrus Film Recorder	$2999
Voice Navigator II	$499

Monitors

Apple 12" Mono/Grayscale	$199
Apple 15" FPD Mono/Grayscale	$449
Apple 21" TPD Mono/Grayscale	$999
E-Machine ColorPage 15 with Card	$499

Upgrades

All Logic Board Upgrades	$Call
Mac SE FDHD Upgrade	$349
Mac II FDHD Upgrade	$399
QMS 4mb upgrade, Model 100 legal pack	$499

Miscellaneous

110-1500 Watt battery backups	$99-$799
Apple IWII/LQ cut sheet feeder	$99/$149
Apple LQ bin expansion	$79
Apple universal monitor stand	$49

Printers

Apple ImageWriter I/II	$149/$289
Apple ImageWriter LQ	$449
Apple ImageWriter I wide carriage	$269
Apple LaserWriter 8ppm Postcript	$499
Apple LaserWriter IInt/ntx	$799/$999
LaserMax 800, 135 fonts	$2499
Mitsubishi G370-10u 300dpi Color	$1999
Newgen Turbo PS400	$1099
QMS ColorScript 100 Model 10	$1999
QMS ColorScript 100 Model 30 11x17	$2999
Qume Script Ten (white write)	$1399
Rich Laser 6000/ps	$899
Texas Instruments 2108	$999

Parts

Mac Plus logic, no ROMs	$99
All logic boards	$CALL
All power supplies	$CALL
Mac Plus power supply	$129
SE analog board	$129
SE Power Supply	$129
1.44 FDHD floppy (used)	$199
400K/800K floppy drive	$49/$99
Apple ADB mouse (new)	$59
Mac IIcx case and power supply	$199
Mac II/IIx/IIfx case and power supply	$199
CRT & yoke for Plus, SE	$49

Over 20,000 items in stock, if you don't see it- Call us!

Limited Time Offer!

2 Gigabytes for just $849!

Large Capacity Hard Drives

Introducing the latest technology in large capacity solutions for your expanding storage needs.

CAPACITY	INTERNAL	TORNADO
S Hawk LP 2GB	$849	$949
Q Capella 2GB	$849	$949
Q Grand Prix 2GB	$899	$999
Q Atlas 2GB	$999	$1099
Q Atlas 4GB	$1499	$1599

$379! Including Cartridge!

Bernoulli Drives

Spin's 230MB removable cartridge drive is a premium storage solution for DTP and graphics users. Five year warranty and one cartridge included.

Bernoulli 230MB	$379
Single Cartridge	$89
3-Pack	$199

Retrospect backup software included.

DAT Drives

Spin DAT drives are the flexible backup solution for all types of users. Store up to 8GB of data on one inexpensive tape. One cartridge included.

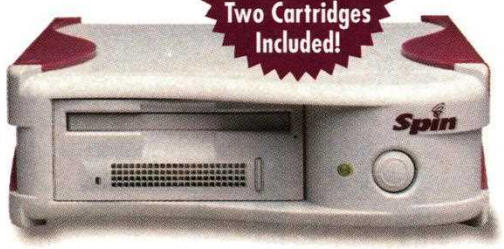
Spin 3100 (DDS)	$799
Spin 3200 (DDS-DC)	$899
Spin 3400 (DDS-2)	$999

QuickTape

Back up your small business and home systems in minutes with QuickTape. Includes a 1GB QIC-WIDE cartridge and backup software.

QuickTape	$499
Cartridge	$19

230MB Only $599 Two Cartridges Included!



Magneto-Optical

Backup or archive your valuable Photoshop™, QuarkXPress™, Excel™, Word™, and database files for years with Spin Magneto-Optical drives. Maxoptics 1.3GB includes one cartridge.

Olympus 230MB	$599
Cartridge	$39
Maxoptix T4 1.3GB	$1999
Cartridge	$85

SyQuest Drives

Transport and save your DTP, graphics, digital photography, and prepress files with SyQuest drives. All drives delivered with one cartridge.

CAPACITY	DRIVE	CARTRIDGE
44MB		$43
44/88MB	$339	$48
200MB	$479	$75
105MB	$249	$56
270MB	$479	$65

MacUser RATED 4½ FEBRUARY 1995

4½ mice rating for our SyQuest 200 and 270!

Manufactured by NOMAÏ

Spin Cartridges

Spin's SyQuest™ compatible cartridges constructed of the most durable material, each cartridge is fully backwards compatible. All cartridges ship preformatted and offer the security of an unconditional 6-year warranty.

44MB	$34
44/88MB	$39

OPTICAL • BERNOULLI • DAT • SYQUEST FOR MEDIA 800-466-1200 OVERNIGHT

Toll-Free Tech Support

30-Day Money-Back Guarantee

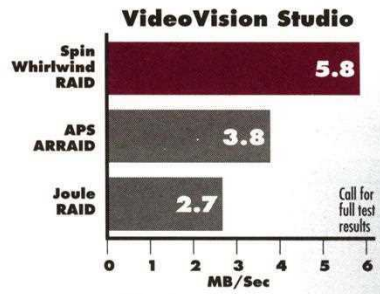
FAX: 508-787-1201

TEL: 508-787-1200

Spin hours: 8:30am to 8pm EST, Monday-Friday

✈ $5.00 OVERNIGHT SHIPPING FOR ANY ORDER UP TO 5 LBS! ✈

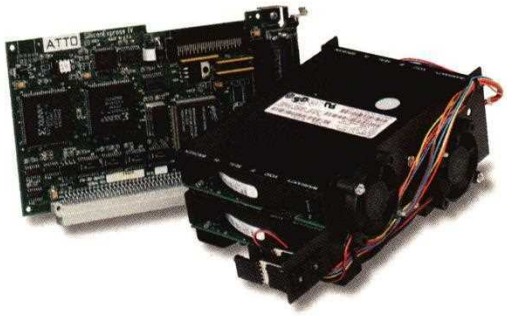
Spin will ship any order to you overnight for just $1.00 per pound, with a $5.00 minimum. If your order is over 21 pounds your price per pound goes down. Offer valid within the contiguous 48 states.



Whirlwind RAID

Video and server applications need the power of our Fast/Wide Whirlwind RAID. ATTO Silicon Express IV and Remus RAID software included.

CAPACITY	RAID 0,1	RAID 0,1,4,5
2GB	$2999	$3199
4GB	$3799	$3999
8GB	$5399	$5599



Internal RAID

Fast/Wide RAID that fits inside your 800, 840AV, PowerMac 8100, or Workgroup Server 80 and 8150. ATTO SE IV and Remus RAID software included.

CAPACITY	RAID 0,1	RAID 0,1,4,5
2GB	$2999	$3199
4GB	$3799	$3999

PowerBook Drives

Spin 2.5" drives are fast, easy to install, and offer the capacity you need when you are on the road.

Quantum 170MB	$179
Quantum 256MB	$249
Quantum 341MB	$349
Quantum 514MB	$449

Including the Anubis Formatting utility by CharisMac Engineering, Inc.

Whirlwind

Whirlwind Fast/Wide drives are for graphics and other users who need superior throughput but not the horsepower of our Whirlwind RAID system.

1GB Seagate Barracuda	$999
2GB Seagate Barracuda	$1399
4GB Quantum Atlas	$2199
ATTO SE IV with drive purchase	$895

Hard Drives

Spin introduces the new, affordable Quantum Fireball and Trailblazers! Perfect for home/office users.

CAPACITY	INTERNAL	TORNADO
Trailblazer 420MB	$189	$289
Fireball 540MB	$219	$319
Trailblazer 840MB	$269	$369
Fireball 1.0GB	$499	$599

VISA MasterCard AMERICAN EXPRESS DISCOVER TeleCheck

Spin and Whirlwind are registered trademarks of Spin Peripherals, Inc.
All other trademarks are the property of their respective holders.
All prices subject to changes without notice, call for latest pricing information.

The best products. Reasonable overnight shipping. Overall value. So go ahead, take a Spin and enjoy.

Spin PERIPHERALS

734 Forest Street, Marlborough, MA 01752
spin@world.std.com

MWK73195

ORDER DIRECT: 800-466-1200

THE LLB COMPANY, INC.

TO ORDER: 1 800-848-8967

INTERNATIONAL: 206-746-0229 FAX: 206-746-5168

MEMORY

NEW DIMMs!

4MB 70NS 64BIT	.185
8MB 70NS 64BIT	.339
16MB 70NS 64BIT	.699
32MB 70NS 64BIT	.1145
64MB 70NS 64BIT	.2275

30 PIN

1 X 8 X 100NS MEMORY UPGRADE	$32
1 X 8 X 70NS FX MEMORY UPGRADE	.45
1 X 8 X 70NS MEMORY UPGRADE	.39
1 X 8 X 80NS FX MEMORY UPGRADE	.43
1 X 8 X 80NS MEMORY UPGRADE	.37
1 X 9 X 70NS MEMORY UPGRADE	.45
2 X 8 X 70NS MEM0RY UPGRADE	.81
2 X 8 X 80NS MEMORY UPGRADE	.79
4 X 8 X 100NS II/IIX UPGRADE	.142
4 X 8 X 70NS FX MEMORY UPGRADE	.155
4 X 8 X 70NS II/IIX UPGRADE	.151
4 X 8 X 70NS MEMORY UPGRADE	.140
4 X 8 X 80NS FX MEMORY UPGRADE	.155
4 X 8 X 80NS II/IIX UPGRADE	.149
4 X 8 X 80NS MEMORY UPGRADE	.138
4 X 9 X 70NS MEMORY UPGRADE	.163
8 X 8 X 80NS FX MEMORY UPGRADE	.349
8 X 8 X 80NS UPGRADE	.299
16 X 8 X 70NS LOW PROFILE	.599
16 X 8 X 80NS FX MEMORY UPGRADE	.659

72 PIN

4MB 60NS 1X32 72PIN UPGRADE	$144
4MB 70NS 1X32 72PIN UPGRADE	.143
8MB 70NS 2X32 72PIN UPGRADE	.279
16MB 70NS 4X32 72PIN UPGRADE	.519
16MB 60NS 4X32 72PIN UPGRADE	.519
8MB 60NS 2X32 72PIN UPGRADE	.295
32MB 60NS 8X32 72PIN UPGRADE	.1039

POWERBOOK MEMORY

PB100-4MB MEMORY UPGRADE	$169
PB100-6MB MEMORY UPGRADE	.179
PB140/145B/170-4MB RAM UPGRADE	.99
PB140/170-6MB MEMORY UPGRADE	.139
PB160/180-4MB MEMORY UPGRADE	.109
PB160/180-6MB MEMORY UPGRADE	.149
PB160/180-8MB MEMORY UPGRADE	.232
PB160/180-10MB MEMORY UPGRADE	.299

PB150 SERIES

PB 150 4MB	$182
PB 150 8MB	.345
PB 150 14MB	.589
PB 165C/180C 4MB RAM	.109
PB 165C/180C 6MB RAM	.149
PB 165C/180C 8MB RAM	.232
PB 165C/180C-10MB	.429

PB500 SERIES

PB 500 SERIES 4 MB RAM	$179
PB 500 SERIES 8 MB RAM	.325
PB 500 SERIES 16MB RAM	.629
PB 500 SERIES 32MB RAM	.1229

PBDUO 210/280 SERIES

PB DUO-4MB MEMORY UPGRA	$169
PB DUO-8MB MEMORY UPGRA	.329
PB DUO-12MB MEMORY UPGR	.479
PB DUO-14MB MEMORY UPGR	.539
PB DUO-20MB MEMORY UPGR	.859
PB DUO-28MB MEMORY UPGR	.1199

ACCESSORIES

VRAM

256K 80NS VIDEO RAM	$20
512K VIDEO RAM	.38

FPU, MATH CO-PROCESSORS

CENTRIS FPU 25MHZ	$299
CLASSIC MATH COPROCESSOR 16MHZ	.59
CLRCLSC POWERCACHE ADAPTER	.110
FPU 33MHZ DUO/P600	.59
FPU COLOR CLASSIC 16MHZ	.49
LC MATH COPROCESSOR 16MHZ	.49
LC575 33MHZ MATH COPROCESSOR	.350
LCIII 25MHZ MATH COPROCESSOR	.49

PB BATTERIES

REPLACEMENT BATTERY 140-180C	$59
SLIMPK EXT BATT PB100-180C	.145
AUTOMOBILE PB ADAPTER	.59
BATTERY PB140-180	.59
MINI A/C ADAPTER FOR DUO	.50
MINI A/C ADAPTER FOR POWERBOOK	.50
PB 100 EXTERNAL BATTERY CHARGE	.115
PB BATTERY CHARGER/CONDITIONER	.55
PB100 BATTERY	.45
VST CHARGER 500	.159
VST CHARGER 500 AC BUNDLE	.229
VST CHARGER 500 DC BUNDLE	.229
VST AUTO ADAPTER 500	.89
THINPACK COMPLETE	115
THINPACK PLUS	229

DRIVES

OPTICAL DRIVES

RUMI 128MB OPTI DRV W/ 5 CART	$799
RUMI 128MB OPTICAL DRIVE	.679
RUMI 230MB MO DRIVE R/W 128MB	.705
RUMI 230MB MO DRIVE W/ 5 CART	.869

CD-ROM DRIVES

RUMI CD-ROM DRIVE - MS	$185
RUMI CD4X DRIVE W/FWB,CLARIS WORKS, GROLIER '95	.315

ZIP DRIVES

ZIP DRIVE	$199

SYQUEST DRIVES

RUMI 88MB SYQUEST W/CART	$369
RUMI 105MB SYQUEST W/CART	.379
RUMI 200MB SYQUEST W/ CART	.539
RUMI 270MB SYQUEST W/CART	.539

HARD DRIVES

RUMI 1.2GB INTERNAL	$1089
RUMI 1.4GB V EXTERNAL	.1019
RUMI 1080 EXTERNAL	.709
RUMI EMPIRE 1080 INTERNAL	.879
RUMI 160MB EXT/INT	.255/189
RUMI 170MB EXT/INT	.269/199
RUMI 270MB EXT/INT	.279/219
RUMI 2.1GB EXT/INT	.1145/1085
RUMI 340MB EXT/INT	.269/195
RUMI 540MB EXT/INT	.325/259
RUMI 365MB EXT/INT	.285/229
RUMI 730MB EXT/INT	.385/319
RUMI 340MB INTERNAL PB	.359
RUMI 510MB INTERNAL PB	.479

CABLES

MODEM & PRINTER CABLES

MAC TO HIGH SPEED MODEM 6'	$7
MAC II TO IMAGEWRITER I 6'	.6
MAC II TO IMAGEWRITER II 6'	.6
MAC II TO IMAGEWRITER II 12'	.7

SCSI CABLES & TERMINATORS

SCSI SYSTEM CABLES	
STANDARD SCSI 25-50 1.5'	$6.75
STANDARD SCSI 25-50 3'	.9
STANDARD SCSI 25-50 6'	.10

POWERBOOK CABLES

PB HDI 30 TO DB25 MALE 2'	$37
PB HDI 30 TO CENT. 50 MALE 2'	.37
PB HDI 30 TO DB25 FEMALE	.27

SCANNERS

VISIONEER

PAPERPORT FOR MAC	$365
PAPERPORT FOR WINDOWS	.365

MICROTEK

SCANMAKER IIHR FULL	$1099
SCANMAKER IISP	539
SCANMAKER III	.2559
SCANMAKER II	.479

NIKON

COOLSCAN EXTERNAL	$1379
COOLPRINT	.1709
SCANTOUCH AX-1200	.1235

AGFA

STUDIOSCAN II	$845
STUDIOSCAN	.699

POLAROID

SPRINTSCAN	$1999

UMAX

POWERLOOK SE+	$2375
POWERLOOK PRO+	.2475
VISTA S-6 PRO+	.780
VISTA S-6 LE+	.680
VISTA S-8 PRO+	.934
VISTA S-8 LE+	.834

PRINTERS

HEWLETT PACKARD

HP LASERJET 4L	$535
HP LASERJET 4ML	.1052
HP LASERJET 4 PLUS	.1514
HP LASERJET 4M PLUS	.2040
HP LASERJET 4V	.2040
HP LASERJET 4MV	.2968
HP LASERJET 4SI	.3135
HP LASERJET 4SI MX	.4449

EPSON

STYLUS COLOR PRINTER	$559

ACCELERATORS

DIIMO

50MHZ 64K LCIII/450	$375
50MHZ 64K LCII/P4	.375
50MHZ 64K W/FPU	.479
50MHZ 64K IICI/SI	.375
128K CACHE IICI	.115
128K CACHE IISI W/ADPTR	.155
128K CACHE IISI/FPU/ADPTR	.209
128K CACHE Q700/900	.115
256K CACHE	.155
256K CACHE & 80MHZ UPGR	.245
512K CACHE	.249
512K CACHE & 80MHZ UPGR	.339
80/84 MHZ CLK UPGR 6/7100	.115
50MHZ 128K Q7/900	.779
128K SLOTLESS CACHE LC475	.175
128K SLTLS CACHE Q660A/7/9/950	.219

ADAPTER MACII FOR AEUI/2	.89
ADAPTER MACIIX FOR 50MHZ	.89
ADAPTER MACIICX FOR 50MHZ	.89
ADAPTER MAC SE30 FOR 50MHZ	.89
ADAPTER MACIISI FOR 50MHZ	.89

SONNET TECHNOLOGY

25MHZ W/16K & FPU LC	$95
33MHZ W/16K & FPU LCII/400	.135
33MHZ W/PMMU II	.179
40MHZ W/FPU C610	.379
40MHZ C610	.235
50MHZ W/FPU Q610	.569
50MHZ W/FPU Q9/7, C/Q660	.569
50MHZ W/FPU C650	.569
32K CACHE IICI	.49
25MHZ FPU Q/C610/650	.189
33MHZ FPU LC575/P575	.285
33MHZ/128K IICI/SI/X/CX	.489
40MHZ/128K IICI/SI/X/CX	.665
ADAPTER 33I / 40F IICX	.55
ADAPTER 33I / 40F IIX	.55
DUAL ADAPTER 33I / 40F IISI	.55
80MHZ POWERMAC BOOSTER	.89
256K CACHE POWERMAC	.155
DUAL ADAPTER W/ FPU IISI	.115

DAYSTAR

POWERPRO 601 80MHZ W/RAM CACHE	$1845
POWERPRO 601 100MHZ W/CACHE	.1749
TURBO 040 40MHZ W/CACHE	.795
TURBO 040I 33MHZ W/CACHE NO FPU	.609
TURBO 601 66MHZ FOR IICI	.999
TURBO 601 66MHZ IISI W/ADPT	.999
TURBO 601 66MHZ IIVX, IIVI, P600	.999
TURBO 601 100MHZ FOR IICI	.1749
TURBO 601 100MHZ IISI W/ADPT	.1749
TURBO 601 100MHZ IIVX, IIVI, P600	.1749
POWERCARD 601	.649

CALL FOR A FREE CATALOG 1 800-848-8967

• AIRBORNE EXPRESS OVERNIGHT $6 AND UP

New from LLB:
Apple Printer Ribbons, Ink & Toner Cartridges!

Now featuring Hewlett Packards complete line of LaserJet IV & V Series Printers!

HEWLETT® PACKARD

WK73195 •NEW WEB SITE: HTTP://llb.com

MODEMS

SUPRA
SUPRA 14.4 S/R FAX $205
SUPRA 2400 BAUD MODEM 59
SUPRA 28.8 PB FAX/MODEM 319
SUPRA 28.8 V.34 S/R FAX MODEM 229
SUPRA V.32BIS PB FAX 165
SUPRAEXPRESS 144 PLUS 99

GLOBAL VILLAGE
TELEPORT GOLDII™ $112
TELEPORT PLATINUM 28.8 V.34 239
POWERPORT DUO 2XX MERCURY 19.2. 329
POWERPORT 1XX PLATINUM 28.8 V.34 339
POWERPORT 5XX MERCURY FOR 500 342

US ROBOTICS
MAC&FAX SPORTSTER® TRUE V.34 ..... $265
SPORTSTER 14,400 MAC&FAX 125

MONITORS

MONITORS
SUPERMATCH 17XL $849
SUPERMATCH 20 PLUS 1915
RADIUS PRECISION VIEW 17" 1025
RADIUS PRECISION COLOR PIVOT 999
RADIUS PRECISIONCOLOR 17 1289
RADIUS INTELLICOLOR 20E 2530
NEC MULTISYNC XV14/15/17 ..... 349/479/839
NEC MULTISYNC XE15/17/21 ..... 599/1099/1969
NEC MULTISYNC XP15/17/21 ..... 649/1149/2379

RADIUS VIDEO
PRECISIONCOLOR PRO 24X NUBUS $1165
PRECISIONCOLOR PRO 24XK NUBUS 809
THUNDER IV GX-1360 RADIUS 2485
THUNDER IV GX-1152 RADIUS 2069
THUNDER IV GX-1600 RADIUS 3075
RADIUS THUNDER 24 GT 1449
SPIGOT PRO AV 1325

Call us about PC Modems!

MEDIA

media HABITAT

EVERYTHING FROM VERBATIM, SONY, SYQUEST AND TDK.
CALL US AT 1 800 848-8967

The Original SyQuest Cartridge

	1-4	5-9	10+
44MB 5.25"	$42	$41	$40
88MB 5.25"	$48	$47	$46
200MB 5.25"	$76		$75
270MB 3.5"	$59	$58	$57
105MB 3.5"	$55		$54

VERBATIM
DataLife 4mm/8mm Data Cartridges
8MM, DL 112 METERS 2.5/5.0GB $7
4MM, DL 60 METERS DDS-MRS 1.3GB 7.50
4MM, DL 90 METERS DDS-MRS 2.0GB 9.50
MEMORY CARDS
2MB MEMORY CARD $255
5MB FLASH CARD 360
10MB FLASH CARD 499
CD-R 74 MIN 4X 650MB 10
CD-R 74 MIN 4X 650MB 10 PACK 89
QIC Data Cartridges
(For 5.25" Form Factor)
DC6150, 620 FT. 550 OE, 150MB $12
DC6250, 1020 FT. 550 OE, 250MB 16
DC6525, 1020 FT. 550 OE, 525MB 21
ANTI-GLARE FILTER
VISIONGUARD $35

TDK
Video Products
120 MIN. HIGH STANDARD GRADE $2.50
120 MIN. EXTRA HIGH GRADE 3.25
120 MIN. HI-FI GRADE 3.50
120 MIN. SUPER-VHS GRADE 6.90
30 MIN. EXTRA HIGH GRADE VHS-C 3.99
120 MIN. 8 MM HIGH STANDARD GRADE .. 4.25
120 MIN. 8 MM EXTRA HIGH GRADE 4.75
120 MIN. HI-8 METAL EVAPORATE 13.99

TDK Audio Products
90 MINUTE METAL TAPE $2.50
100 MINUTE SUPER HIGH BIAS 3.25
90 MINUTE HIGH BIAS 2.49
90 MINUTE NORMAL BIAS 99
TDK FLOPPY DISKS
3.5" DSDD FLOPPY DISK $4.50
3.5" DSHD FLOPPY DISK 5.99
3.5" DSDD FLOPPY DISK IBM FORMATTED .6.50
3.5" DSHD FLOPPY DISK MAC FORMATTED .6.50
5.25" DSDD FLOPPY DISK 4.50
5.25" DSHD FLOPPY DISK 5.50

SONY
Magneto Optical Disks
5.25" MO 1.3GB 1024K B/S $85
5.25" MO 1.2GB 512K B/S 85
5.25" MO 650MB 1024K B/S 69
5.25" MO 594MB 512K B/S 69
3.5" MO 230MB 35
3.5" MO 230MB/MAC FORMATTED 37
3.5" MO 128MB 26
3.5" MO 128MB MAC FORMATTED 29
5.25" MO LENS CLEANING KIT 55
5.25" MO DISK CLEANING KIT 44
3.5" MO LENS CLEANING KIT 35
3.5" MO DISK CLEANING KIT 28
SONY CD-Recordable
74 MIN 4X 650MB-10 PACK $94.99
74 MIN 4X 650MB 9.99

CD-ROM

CD-ROM HABITAT

OVER 2,000 TITLES!

BLOWN AWAY $40
ARC OF DOOM 39
QUANTUM AXCESS 3 PAK 29
MYST 49
VOYEUR 48
STONEKEEP 48
DESCENT 40
GADGET 47
MILLIE'S MATH HOUSE 38
ECO EAST AFRICA 36
SAFETY MONKEY 24
OZZIE'S WORLD 34
YOUR PERSONAL TRAINER: SAT 38
MATH BLASTER IN SEARCH OF SPOT 38
LION KING: ANIMATED STORYBOOK 36
ALADDIN ACTIVITY CENTER 29
ANNO'S LEARNING GAMES 33
CARTOON HISTORY OF THE UNIVERSE 29
EARTHCARE INTERACTIVE 27
MAGIC BEAR'S MASTERPIECE 33
MUTANOID MATH & WORD CHALLENGE 32
FOUR FOOTED FRIENDS 18
HAIGHT ASHBURY IN THE 60'S 34
REELECT JFK 33
CAMPAIGNS, CANDIDATES & 29
MUSIC ROM PERSPECTIVE SERIES 20
VIRTUAL BODY 29
MAYO CLINIC: HEALTH ENCYCLOPEDIA 79
DR. SCHUELER'S MEDICAL ADVISER PRO 4.0 .46
DR. SCHUELER'S SELF HEALTH 29
PHONE DISC POWER FINDER 148
ENCARTA 95 ..... $89
CREATIVE FUEL 49
PHOTODISC STARTER KIT 29
PHOTODISC SIGNATURE SERIES 249
VR WORKSHOP 39
PREMIER COLOR DIGITAL PHOTOS ... 19
COREL PHOTO CD'S ..... CALL
ADVENTURES WITH EDISON 29
WILD CARDS 29
COREL STOCK PHOTO LIBRARY 725
COREL GALLERY 2 69
CASPER BRAINY BOOK 28
X-MEN CARTOON MAKER 28
SPIDER MAN CARTOON MAKER 28
FLASHBACK 43
KIDS TIME DELUXE 27
MARIO'S GAME GALLERY CD 27
POWER PETE 27
SOLITAIRE DELUXE 27
DUNGEON MASTER II 40
FRANKENSTEIN 50
FLY FISHING: OF THE WEST 30
SIGN LANGUAGE FOR EVERYONE 30
ULTIMATE GAME BUNDLE 27
ELECTRONIC ARTS TOP TEN PAK II ... 35
CREATIVE MULTIMEDIA BUNDLE 29
CD CADDY 13
CD CADDY 5 PACK 34
RUMI CD 4X DRIVE 315
STREET ATLAS 69
DISTANT SUNS 39

Electronic orders: Compuserve @ 73423, 1272
- P.O.'s accepted upon approval
- All major credit cards accepted– No surcharge- when shipped
- Prices subject to change– Not responsible for errors
- We export to most countries in the world

- Orders received before 8:00 pm EST weekdays shipped same day
- Open 6 am to 7 pm M–F. 9 am to 4 pm Saturdays
- No sales tax except applicable sales tax in WA
- Returns subject to a 15% restocking fee.

The LLB Company, Inc. 13228 NE 20th St., Suite B, Bellevue, WA 98005

Authorized Resellers

NEWER HABITAT

INNOVATORS IN POWER AND PERFORMANCE

Newer TECHNOLOGY

Mac SIMMs & DIMMs
for all models of Mac and Power Mac.

Power MacCache
256K Power Mac Cache Memory.

SCSI MicroDock
PowerBook Duo Mini Docking Bar.

Meteor Accelerator
50MHz 68040 accelerator with 128K Cache.

PowerBook Memory
2MB to 32MB Memory Modules.

Mac Clip & Power Clip
CPU accelerator for Centris, Quadra and Power Mac.

FOR ALL YOUR QUALITY NEWER TECHNOLOGY PRODUCTS CALL THE NEWER HABITAT

1 800-840-2212

Fax: 206 746-5168

ProDirect

Professional Service...Products Direct

800-524-9952

Fax 24 hours a day 612-941-1109
International orders call 612-941-1805
In Minnesota call 612-941-1805

- Most orders shipped same day!
- No surcharge on credit cards
- No out of state sales tax collected
- 30 day money back guarantee on all hard drives
- Your choice of a system cable or daisy chain cable with each drive purchase
- Corporate & Government PO's welcomed

CD ROM Drives

Chinon CDA525 — 135/195
280ms access time, 300Kb/sec transfer rate,256K,1 Year Warranty

SONY CDU55 — 235/275
280ms access time, 300Kb/sec transfer rate

NEC 2VMac — 205/245
320ms access time, 300Kb/sec transfer rate, 1 Year Warranty

NEC 3Xp — na/398
240ms access time, 500Kb/sec transfer rate, 1 Year Warranty

Toshiba QuadSpeed — 340/380
120ms access time, 600Kb/sec transfer rate, 256K,1 Year Warranty

NEC 4Xe — 445/485
220ms access time, 600Kb/sec transfer rate,256K,1 Year Warranty

Plextor 4Plex — 385/425
235ms access time, 600Kb/sec transfer rate, 256K,1 Year Warranty

Plextor 6Plex — 555/615
235ms access time, 600Kb/sec transfer rate, 256K,1 Year Warranty

Kingston TECHNOLOGY CORPORATION

Removable Drive Carriers

- Provides ability to easily remove and transport data
- Ideal for disk array environments
- Compatible with single ended, narrow differential, or fast & wide SCSI disk drives
- SCSI ID select number is clearly displayed on front panel of the receiving frame
- Key locked to prevent unauthorized or untimley removal of the drive carrier
- 5 year warranty

"Kingston Data Silo's are ideal for enclosing 5.25" and 3.5" storage devices, including disks, tapes, DATs or optical drives for external SCSI expansion". Kingston Technology Corp.1994

Digital Linear Tape Drives

Quantum DLT

Model	Capacity	Trans.Rate	Media	Ext.
DLT2000	20 GB	2.5MB/sec.	DLT20	$3995
DLT4000	40 GB	3.0MB/sec.	DLT40	$Call!

1 free cartridge with each DLT purchase

These drives are ideal for AV and network backup due to their advanced linear recording technology and a highly accurate tape guide system . DLT allows you to backup 150 to 180 MB per minute. DLT is your high capacity high performance backup solution.

Optical Drives

	Capacity		Access	Warranty	Ext.
Hewlett Packard	1.3 GB	1716T	23.5ms	1 Year	2295
MaxOptics	1.3 GB	Tahitti III	18ms	1Year	2395
Fujitsu	230 MB	M2512	30ms	1Year	575

1 free cartridge with each drive purchase

Hard Drive Cabinets

Zero Footprint 10.75" x 9.75" x 2" $75
MicroCab 8.5" x 6.75" x 2" $85
Full Height 9.75" x 9.5" x 4.5" $135
Multi Bay Cabinets ..... $CALL
Two, four, six, and eight bay cabinets available. All cabinets come with a 25-50 pin Mac system cable and a power cable. 1 year warranty on all cabinets.

Scanners

Nikon	Scantouch	$1299
	Transparency Adapter	$599
	Coolscan	$1499
UMAX	UC630/1260	$675/1240
	Vista S6	$760
	Powerlook	$3250

All prices are subject to change without notice. Returned products are subject to a restocking fee. International customers pay all shipping charges. All shipping charges are non-refundable. To return merchandise call for an RMA number. All RMAs must be returned within 10 business days of issuance. Customers are responsible for all returned product shipping charges.

VISA MasterCard

Business Hours
8:00am-7:00pm (CST)

NEW Quantum Quantum Quantum

	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
Lightning	365 MB	11 ms	4500	128K	2 Year	135	195
Trailblazer	420 MB	14 ms	4500	128K	3 Year	185	245
DSP3053	535 MB	9 ms	5400	512K	5 Year	225	285
Maverick	540 MB	14 ms	3600	128K	2 Year	190	250
Fireball	540 MB	11 ms	5400	128K	3 Year	195	255
Lightning	730 MB	11 ms	5400	128K	2 Year	255	315
Trailblazer	850 MB	14 ms	4500	128K	3 Year	275	335
Fireball	1080 MB	11 ms	4500	128K	3 Year	395	455
Capella	2.0 GB	8.5ms	5400	1024K	5 Year	795	855
Atlas Series	2.0 GB	9ms	7200	1024K	5 Year	925	985
Grand Prix	4200 MB	8.6 ms	7200	512K	5 Year	1085	1145
Atlas Series	4.3 GB	9ms	7200	2048K	5 Year	1495	1555

	Capacity	Size	Seek	Cache	Warranty	Int.	Ext.
Daytona	256 MB	Powerbook 2..5"	17 ms	128K	1 Year	215	275
Daytona	341 MB	Powerbook 2..5"	17 ms	128K	1 Year	295	355
Daytona	514 MB	Powerbook 2..5"	17 ms	128K	1 Year	375	435

New Products MICROPOLIS MICROPOLIS New Pricing!!

	Capacity	Access	RPM	Cache	Warranty	Int.	Ext.
M4221	2.1 GB	8.5 ms	7200	512K	5 Year	890	950
M4221Wide	2.1 GB	8.5 ms	7200	512K	5 Year	1080	1140
M1936	3.6 GB	11 ms	5400	512K	5 Year	1195	1295
M3243	4.3 GB	8.5 ms	7200	512K	5 Year	1385	1465
M3243Wide	4.3 GB	8.5 ms	7200	512K	5 Year	1475	1535
M1991	9.0 GB	12 ms	5400	512K	5 Year	2190	2290
M1991Wide	9.0 GB	12 ms	5400	512K	5 Year	2295	2395

Direct to Disk Recording AV Drives- BEST for Music and Video Storage

M4221AV	2.1 GB	8.5 ms	7200	512K	5 Year	945	1005
M1936AV	3.6 GB	11 ms	5400	512K	5 Year	1245	1345
M3243AV	4.3 GB	8.5 ms	7200	512K	5 Year	1440	1500
M1991AV	9.0 GB	12 ms	5400	512K	5 Year	2240	2340
M4221WideAV	2.1 GB	8.5 ms	7200	512K	5 Year	1135	1195
M3243WideAV	4.3 GB	8.5 ms	7200	512K	5 Year	1595	1655
M1991WideAV	9.0 GB	12 ms	5400	512K	5 Year	2495	2595

NEW MICRODISK LT *3.5"Stackable Disk Subsystems, Super Capacity External Storage*

M2100	2.1 GB	8.9 ms	7200	512K	5 Year	Call for the most
M4200	4.3 GB	8.9 ms	7200	512K	5 Year	competitive pricing

SPRING SPECIALS

Quantum 365MB ..... Int. $135 Ext. $195
4500RPM, 11ms seek, 128K cache, 2 year warranty

Quantum535MB ..... Int. $225 Ext. $285
DSP3053, 5400RPM, 9ms seek, 512K cache, 5 year warranty

Quantum Trailblazer 850MB ..... Int. $275 Ext. $335
QTB850, 4500RPM, 14ms seek, 128K cache, 3 year warranty

Quantum Fireball 1.0GB ..... Int. $395 Ext. $455
QFB1080, 4500RPM, 11ms seek, 2 year warranty

Micropolis 2.0GB ..... Int. $890 Ext. $950
M4221,7200RPM, 9ms seek, 5 year warranty

Seagate Barracuda 4.0GB ..... Int. $1495 Ext. $1555
ST15150N, 7200RPM, 8ms seek, 5 year warranty

Micropolis 9.0GB ..... Int. $2190 Ext. $2290
ST15150N, 7200RPM, 8ms seek, 5 year warranty

Seagate Seagate Seagate Seagate

	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
Hawk 2LP	1.2 GB ST31230N	9ms	5400	512K	5 Year	515	575
Hawk 4	4.2 GB ST15230N	9ms	5400	512K	5 Year	1135	1195
Barracuda 2LP	2.5 GB ST32550N	8ms	7200	1024K	5 Year	1050	1110
Barracuda 4	4.2 GB ST15150N	8ms	7200	1024K	5 Year	1495	1555
Barracuda 2Wide	2.5 GB ST32550Wide	8ms	7200	1024K	5 Year	1125	1195
Barracuda 4Wide	4.2 GB ST15150Wide	8ms	7200	1024K	5 Year	1590	1650
Elite 9	9.0 GB ST410800N	11ms	5400	1024K	5 Year	2475	2575

FUJITSU FUJITSU FUJITSU FUJITSU FUJITSU FUJITSU

	Capacity	Seek	RPM	Cache	Warranty	Int.	Ext.
M2684	530 MB	9ms	4500	256K	3 Year	205	265
M1606SA	1.2 GB	9ms	4500	512K	3 Year	475	535

HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD HEWLETT PACKARD

	Capacity	Access	RPM	Cache	Warranty	Int.	Ext.
C3784SE	1.2 GB	9.5 ms	5400	512K	5 Year	550	610
C3725E	2.4 GB	8.5 ms	6300	512K	5 Year	1095	1155

All in Stock! SyQuest TECHNOLOGY

Capacity	Seek	RPM	Int.	Ext.
88 MB SQ5110C	20 ms	3200	285	345
200 MB SQ5200	18 ms	3200	405	465
270 MB SQ3270	13.5 ms	3200	405	465

2 Year Warranty on all SyQuest Drives.
SyQuest drives come complete with 1 cartridge(Formatted or Unformatted) and the latest SCSI 4.3 compatible software

SyQuest Media

Capacity	Model	Warranty	Price
44 MB	SQ400	5 year	$41
88 MB	SQ800	5 year	46
105 MB	SQ310	5 year	50
200 MB	SQ2000	5 year	74
270 MB	SQ327	5 year	61

SCSI-2 Accelerators

Atto

Silicon Express Fast SCSI-2 — 525
SCSI 1 & 2 support,transfer rates up to 10.0 MB/sec,supports multiple block sizes,takes advantage of parallel processing capability by transferring data directly between the Mac RAM and the SCSI bus! Ideal for graphic design,multimedia applications,software design, and more!

Silicon Express 4 Card — 895
Fast/Wide (16Bit) SCSI-2 accelerator card for Apple's Nubus based computers. Supports Fast/Wide SCSI 2 (16 Bit) transfer rates up to 20MB/sec., and fast SCSI-2 (8 Bit) transfer rates up to 10MB/sec. Full 16 Bit WIDE support for the latest drives and disk arrays . Fully compatible with all existing SCSI-1 drives . Formatting software is included. 5 Year Warranty.

Remus RAID Software — Call

Tape Backup Drives

HEWLETT PACKARD

Capacity	Model	Media	Int.	Ext.
2.0 GB	35470	4mm	$935	$985
3-5 GB	35480	4mm	1105	1150
4-10 GB	1533A	4mm	1235	1295
20-50 GB	1553A Auto Tape Loader		3495	3595

Exabyte

Capacity	Model	Media	Int.	Ext.
2-5 GB	8205XL	8mm	$1395	$1485
7-14 GB	8505XL	8mm	2130	2190

Dat drives include 1 piece of media and Retrospect Software

DeskTape™ Allows you to mount your DAT on the desktop. Backing up your data is as easy as drag and drop!

ProDirect always suggests that our customers backup their hard drives. In the event of hard drive failure, be assured and back up your data with quality tape backup drives from Hewlett Packard and Exabyte.

Memory Products

Memory	Centris,LCIII,Quadra
2x8x80	4MB 60/70ns
4x8x80 60/70ns	8MB 60/70ns
4x8x80 FX	16MB 70ns
16x8x80 Low Profile	32MB 60ns
16x8x80 FX	VRAM 256K/512K

Powerbook Memory
520,520C,540,540C
4MB,8MB,16MB,32MB
140,170,160,165C,180,180C,Duos
4MB,6MB,8MB,10MB, 12MB,14MB,20MB

Lifetime Warranty on all Memory Products!!

Always call for the most competitive pricing on memory.

MAC XTRA DISCOUNTS

MEDIA

$57 SYQUEST 270MB CARTRIDGE

44MB FMTD SYQUEST CARTRDGE 42
44MB SYQUEST CARTRDGE 40
88MB FMTD SYQUEST CARTRDGE 46
88MB SYQUEST CARTRDGE 45
105MB SYQUEST CARTRDGE 53
200MB SYQUEST CARTRDGE 74
270MB SYQUEST CARTRDGE 57

BERNOULLI

150MB 5-PK BERNOULLI CARTRDGE 420
150MB BERNOULLI CARTRIDGE 95
44MB BERNOULLI CARTRIDGES 93
90MB BERNOULLI CARTRIDGES 87

$9.50 VERBATIM RECORDABLE CDROM 74 MIN

RECORDABLE CDROM 74MIN/640MB 9.50
VERBATIM 2SDD 3 1/2 10PK DISK 6
VERBATIM 4MM/60M DATA CART 7
VERBATIM DATA 4MM DC 295 FT 9
VERBATIM DATA 8MM DC 367 FT 7
VERBATIM DC 2120 120MB QIC80 12
VERBATIM MINI/QIC 120MB/307FT 15
VERBATIM MINI/QIC 40MB/205FT 12
VERBATIM EP-S HIGH YIELD TONER 59
VERBATIM EP-N TONER CART 85
VERBATIM EP-L TONER CART 75
VERBATIM ANTI-GLARE FILTER 14/15" 33

KOMAG

3.5" 128MB OPTICAL 19
3.5" 230MB OPTICAL 22
5.25" 1.0GB OPTICAL 53
5.25" 600/650MB OPTICAL 46

TDK AUDIO PRODUCTS

90 MINUTE METAL TAPE $2.50
100 MINUTE SUPER HIGH BIAS $3.25
90 MINUTE HIGH BIAS $2.49
90 MINUTE NORMAL BIAS .....$.99
120 MIN. HIGH STANDARD $2.50
120 MIN. EXTRA HIGH $3.25
120 MIN. HI-FI GRADE $3.50
120 MIN. SUPER-VHS $6.90
30 MIN. EXTRA HIGH VHS-C $3.99
120 MIN. 8 MM HIGH STANDARD $4.25
120 MIN. 8 MM EXTRA HIGH $4.75
120 MIN. HI-8 METAL EVAPORATE $13.99

SONY BATTERIES

D2 PACK $2.99
C2 PACK $2.99
AA 2 PACK $2.49
9 VOLT 1 PACK $2.99
AAA 2 PACK $2.99

$8.99 SONY 120 MINUTE HI-8 METAL TAPE

120 MINUTE / 4 PACK .....$4.99/$16.99
120 MIN HIGH GRADE / 4 PK .....$5.90 / $20
120 MIN HI-8 METAL EVAP/4 PACK .....$14 / $48
120 MIN HI--8 METAL PART/4 PK. .....$8.99/$33.99

VHS TAPES

120 MINUTE / 4 PACK .....$3.00 / $11
160 MINUTE $3.50
120 / 160 MINUTE SUPER .....$8.50 / $10
•WORKS WITH SUPER VHS PLAYER

BETA TAPES (LIMITED AVAILABILITY!)

500 / 750 METER LGTH .....$3.00 / $3.50
750 METER LGTH HIGH GRADE $4.00
500 METER LGTH METAL $15.99

CABLES

MAC HAYES HANDSHAKING CABLE 9
MODEM CABLE 6'PLUS/SE/II 5
SCSI CABLE M50-50 6' CABLE 14
SCSI M50-M50 18 CABLE 8
SCSI TERMINATOR 14

CALL US FOR ANY CABLES YOU NEED!

MEMORY AS LOW AS $142 1X32X70NS

30 PIN

1 X 8 X 100NS MEMORY UPGRADE $31
1 X 8 X 70NS FX MEMORY UPGRADE 34
1 X 8 X 70NS MEMORY UPGRADE 35
1 X 8 X 80NS FX MEMORY UPGRADE 34
1 X 8 X 80NS MEMORY UPGRADE 34
1 X 9 X 70NS MEMORY UPGRADE 42
2 X 8 X 70NS MEM0RY UPGRADE 74
2 X 8 X 80NS MEMORY UPGRADE 75
4 X 8 X 100NS II/IIX UPGRADE 146
4 X 8 X 70NS FX MEMORY UPGRADE 132
4 X 8 X 70NS II/IIX UPGRADE 135
4 X 8 X 70NS MEMORY UPGRADE 128
4 X 8 X 80NS FX MEMORY UPGRADE 149
4 X 8 X 80NS II/IIX UPGRADE 130
4 X 8 X 80NS MEMORY UPGRADE 125
4 X 9 X 70NS MEMORY UPGRADE 156
8 X 8 X 80NS FX MEMORY UPGRADE 314
8 X 8 X 80NS UPGRADE 265
16 X 8 X 70NS LOW PROFILE 575
16 X 8 X 80NS FX MEMORY UPGRADE 560

72 PIN

1X32 4MB 60NS 72PIN UPGRADE 148
1x32-4MB MEMORY UPGRADE 72PIN 142
2 X 36/8MB MEMORY UPGRADE 325
2x32-8MB MEMORY UPGRADE 72 PIN 272
4x32 SIMMS 16MB 70NS 538
4x32-16MB NON COMP POWER MAC 516
8 X 36 X 60NS 1288
8MB 60NS SIMM QUADRA 800 72PIN 293
8X32 32MB 60NS UPGRADE 1177

VRAM

256K 80NS VIDEO RAM 17
512K VIDEO RAM 30

FPU, MATH CO-PROCESSORS

CENTRIS FPU 25MHZ 275
CLASSIC MATH COPROCESSOR 16MHZ 46
CLRCLSC POWERCACHE ADAPTER 100
FPU 33MHZ DUO/P600 51
FPU COLOR CLASSIC 16MHZ 41
LC MATH COPROCESSOR 16MHZ 43
LC575 33MHZ MATH COPROCESSOR 336
LCIII 25MHZ MATH COPROCESSOR 47

POWERBOOK MEMORY

PB100-4MB MEMORY UPGRADE $124
PB100-6MB MEMORY UPGRADE 163
PB140/145B/170-4MB RAM UPGRADE 92
PB140/170-6MB MEMORY UPGRADE 132
PB160/180-4MB MEMORY UPGRADE 101
PB160/180-6MB MEMORY UPGRADE 146
PB160/180-8MB MEMORY UPGRADE 210
PB160/180-10MB MEMORY UPGRADE 287

PB150 SERIES

PB 150 4MB 171
PB 150 8MB 328
PB 150 14MB 572
PB 150 RAM ADAPTOR 13
PB 165C/180C 4MB RAM 99
PB 165C/180C 6MB RAM 146
PB 165C/180C 8MB RAM 210
PB 165C/180C-10MB 393

PB500 SERIES

PB 500 SERIES 4 MB RAM 163
PB 500 SERIES 8 MB RAM 313
PB 500 SERIES 16MB RAM 533
PB 500 SERIES 32MB RAM 1104

PBDUO 210/280 SERIES

PB DUO-4MB MEMORY UPGRA 161
PB DUO-6MB MEMORY UPGRA 317
PB DUO-8MB MEMORY UPGRA 316
PB DUO-12MB MEMORY UPGR 465
PB DUO-14MB MEMORY UPGR 538
PB DUO-20MB MEMORY UPGR 771
PB DUO-28MB MEMORY UPGR 1143

BATTERIES

REPLACEMENT BATTERY 140-180C 57
SLIMPK EXT BATT PB100-180C 138
AUTOMOBILE PB ADAPTER 59
BATTERY PB140-180 59
MINI A/C ADAPTER FOR DUO 48
MINI A/C ADAPTER FOR POWERBOOK 48
PB 100 EXTERNAL BATTERY CHARGE 110
PB BATTERY CHARGER/CONDITIONER 51
PB100 BATTERY 43

MONITORS

SUPERMATCH 17XL 819
SUPERMATCH 17T 869
SUPERMATCH 20 PLUS 1865
RADIUS PRECISION VIEW 17" 945
PRECISION COLOR PIVOT 999
PRECISIONCOLOR 17 RADIUS 1258
INTELLICOLOR 20E 2475
NEC MULTISYNC XV14/15/17 .....340/465/815
NEC MULTISYNC XE15/17/21 .....589/1079/1919
NEC MULTISYNC XP15/17/21 .....630/1115/2320

VIDEO

PRECISIONCOLOR PRO 24X NUBUS 1135
PRECISIONCOLOR PRO 24XK NUBUS 795
THUNDER IV GX-1360 RADIUS 2420
THUNDER IV GX-1152 RADIUS 2019
THUNDER IV GX-1600 RADIUS 2995
RADIUS THUNDER 24 GT 1415
SPIGOT PRO AV 1290

MODEMS

HAYES

HAYES ACCURA 14.4 FAX/MODEM $119
HAYES OPTIMA 14.4 FAX/MODEM 410
HAYES OPTIMA 28.8 FAX EXT V.34 459

PROMETHEUS

PROMETHEUS HOME OFFICE W/V EXT 215
PROMETHEUS PB INT 14.4 F/MODEM 179

ZOOM

ZOOM 2400 BPS MODEM 65
ZOOM V.FAST 28.8 V.34 FAX MODEM 182
ZOOM VFX 14.4 V.32BIS S/R FAX 125
ZOOM VFXV 14.4 V.32BIS W/VOICE 147

$98 SUPRA EXPRESS 14.4 PLUS

SUPRA 14.4 S/R FAX 179
SUPRA 2400 BAUD MODEM 58
SUPRA 28.8 PB FAX/MODEM 303
SUPRA 28.8 V.34 S/R Fax Modem 218
SUPRA V.32BIS PB FAX 161
SUPRAEXPRESS 144 PLUS 98

DRIVES

OPTICAL DRIVES

RUMI 128MB OPTI DRV W/ 5 CART 775
RUMI 128MB OPTICAL DRIVE 659
RUMI 230MB MO DRIVE R/W 128MB 689
RUMI 230MB MO DRIVE W/ 5 CART 839

DAT DRIVES

RUMI DAT 2.0GB W/RETROSPECT 779
RUMI DDS/2 DAT 8.0GB W/RETRO 1115

CD-ROM DRIVES

RUMI CD-ROM DRIVE - MS 169
RUMI CD4X DRIVE W/FWB,CLARIS WORKS, GROLIER '95 305

ZIP DRIVES

ZIP DRIVE 199

$509 RUMI 270MB SYQUEST DRIVE

RUMI 88MB SYQUEST W/CART 369
RUMI 105MB SYQUEST W/CART 359
RUMI 200MB SYQUEST W/ CART 515
RUMI 270MB SYQUEST W/CART 509

HARD DRIVES

RUMI 1.2GB INTERNAL $1049
RUMI 1.4GB V EXTERNAL 999
RUMI 1080 EXTERNAL 709
RUMI EMPIRE 1080 INTERNAL 149
RUMI 160MB EXT/INT 245/184
RUMI 170MB EXT/INT 259/190
RUMI 270MB EXT/INT 260/205
RUMI 2.1GB EXT/INT 1115/1059
RUMI 340MB EXT/INT 259/186
RUMI 540MB EXT/INT 245/319
RUMI 365MB EXT/INT 269/205
RUMI 730MB EXT/INT 369/305
RUMI 340MB INTERNAL PB 349
RUMI 510MB INTERNAL PB 459

NETWORKING

$182 FARALLON ETHERWAVE NUBUS OR LC

ETHERWAVE NUBUS OR LC 182
ETHERWAVE AUI TRANSCEIVER 102
ETHERWAVE AAUI TRANSCEIVER 102
ETHERWAVE PRINTER ADAPTER 269

DAYNA

DAYNAPORT CS-T (10BASE-T) $79
DAYNAPORT CS-T 5 PAK (10BASE-T) 353
DAYNAPORT CS (BNC) 86
DAYNAPORT CS 5 PAK (BNC) 383
DAYNASTAR MINI HUB 5 (5 10BASE-T) 146
DAYNASTAR MINIHUB 8 (8 10BASE-T) 171
DAYNAPORT E/II (BNC,AUI) 114

ASANTE

MACCON + 610E ENET THICK/10BASE-T 169
MACCON+ 610 THICK/THIN/10BASE-T 197
MC+ 30IET64 THICK 155
MACS W/BUILT -IN ETHERNET - THIN/10BASE-T 84
MACS W/BUILT-IN ETHERNET - THIN 44
MACS W/BUILT-IN ETHERNET - THICK 69

$774 DAYSTAR TURBO 040 40MHZ

ACCELERATORS

POWERPRO 601 80MHZ W/RAM CACHE $1795
POWERPRO 601 100MHZ W/CACHE 1701
TURBO 040 40MHZ W/CACHE 774
TURBO 040I 33MHZ W/CACHE NO FPU 595
TURBO 601 66MHZ FOR IICI 925
TURBO 601 66MHZ IISI W/ADPT 975
TURBO 601 66MHZ IIVX, IIVI, P600 975
TURBO 601 100MHZ FOR IICI 1701
TURBO 601 100MHZ IISI W/ADPT 1701
TURBO 601 100MHZ IIVX, IIVI, P600 1701
POWERCARD 601 629

SONNET TECHNOLOGY

25MHZ W/16K & FPU LC 92
33MHZ W/16K & FPU LCII/400 130
33MHZ W/PMMU II 174
40MHZ W/FPU C610 369
40MHZ C610 230
50MHZ W/FPU Q610 552
50MHZ W/FPU Q9/7, C/Q660 552
50MHZ W/FPU C650 552
32K CACHE IICI 47
25MHZ FPU Q/C610/650 185
33MHZ FPU LC575/P575 278
33MHZ/128K IICI/SI/X/CX 479
40MHZ/128K IICI/SI/X/CX 645

$365 DIIMO 040 50MHZ 64K LCIII/450

50MHZ 64K LCIII/450 365
50MHZ 64K LCII/P4 365
50MHZ 64K W/FPU 470
50MHZ 64K IICI/SI 365
128K CACHE IICI 110
128K CACHE IISI W/ADPTR 152
128K CACHE IISI/FPU/ADPTR 202
128K CACHE Q700/900 110
256K CACHE 149
256K CACHE & 80MHZ UPGR 235
512K CACHE 243
512K CACHE & 80MHZ UPGR 235
80/84 MHZ CLK UPGR 6/7100 110
50MHZ 128K Q7/900 759
128K SLOTLESS CACHE LC475 169
128K SLTLS CACHE Q660A/7/9/950 212

Fax Your Order ! 206-746-5324

Overnight Delivery $7 and up
UPS Ground $6 and up
MasterCard, VISA & Discover , No Surcharge
Prices Subject to Change Without Notice.
MAC Xtra 1075 Bellevue Way NE, Suite 114, Bellevue, WA 98004 - Phone (206) 746-3803

CALL FOR OUR FREE CATALOG!

1-800-553-4230

WK73195

International: 206-746-0229

Returns Subject to Approval & Restocking Fee
Office Hours:
M-F, 7:00 AM to 6:00 PM
Sat, 9:00 AM to 4:00 PM PST

DIRECT CONNECTIONS

800-572-4305

30 DAY MONEY-BACK

MacWorld Expo
Boston
Booth # 1619

INT'L: 612-937-9771
FAX: 612-937-6285
HOURS: M-F 8:00-8PM CST

"Direct Connections provided excellent technical support." **MacWorld July'95**
"Direct Connections' array offered the best performance per dollar of the drives tested." **Digital Video Oct. '94**
"Your next option is to locate...highly visible digital video suppliers like Direct Connections." **NEWMEDIA June '95**
""I tried...Direct Connections...configurations without encountering any problems" **Video Pro April '95**
"This array is the one to beat." **Ken Grey** Writer for WIRED, Computer User, MovieMaker, Computer Video, and Digital Video Magazine.
"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." **MacWorld April '95**

HARD DRIVES

Seagate Elite 9 9gig. $2495.

Ask us about MR (magneto-resistive) Head Technology

240MB - 1200MB

BRAND/MODEL	CAPACITY	SIZE	ACCESS	RPM	INTERNAL	EXTERNAL
QUANTUM	514MB	2.5"	14MS		$ 425	
FUJITSU M2684S	530MB	3.5"	13MS	5400	$ 209	$ 269
NEC	730MB	3.5"	11MS	4090	$ 239	$ 299
CONNER CFP1080S	1.2GIG	3.5" LP	9MS	5400	$ 455	$ 515
Hitachi DK326c-10	1.0GIG	3.5"	9MS	6300	$ 535	$ 595
FUJITSU M1606S	1.2GIG	3.5" LP	10MS	5400	$ 415	$ 475
Seagate ST31230N	1.2GIG	3.5" LP	9MS	5400	$ 585	$ 645

1.7GIG - 9GIG

5 YEAR WARRANTY

BRAND/MODEL	CAPACITY	SIZE	ACCESS	RPM	INTERNAL	EXTERNAL
Seagate ST12450W	1.7GIG	3.5"	8MS	7200	$ 1495	$ 1555
Conner CFP2105S	2.1GIG	3.5" LP	9MS	5400	$ 835	$ 895
Fujitsu M2915S	2.1GIG	3.5"	8.9S	7200	$ 939	$ 999
Conner CFP2107S	2.1GIG	3.5" LP	8MS	7200	$ 955	$ 1015
Quantum XP32150S	2.2GIG	3.5" LP	8.6MS	7200	$ 935	$ 995
Seagate Barracuda 2	2.5GIG	3.5" LP	8MS	7200	$ 1055	$ 1115
Seagate Barracuda 2W	2.5GIG	3.5" LP	8MS	7200	$ 1189	$ 1249
Seagate Barracuda 4	4.1GIG	3.5"	8MS	7200	$ 1499	$ 1559
Seagate ST15230N	4.3GIG	3.5"	9MS	5400	$ 1155	$ 1215
Conner CFP4207S	4.2GIG	3.5"	9MS	7200	$ 1295	$ 1355
Conner CFP4207wide	4.2GIG	3.5"	9MS	7200	$ 1395	$ 1455
Grand Prix XP34301S	4.3GIG	3.5"	8.6MS	7200	$ 1089	$ 1149
Seagate Elite 9	9.0GIG	5.25"	11MS	5400	$ 2495	$ 2595

CD RECORDERS

- Multimedia
- Archiving
- Distribution
- In-house publishing
- Back-up
- Image Data handling

Includes 10 CD's

- Unprecedented 4X speed
- Multisession
- Selectable Speeds
- Flexible Formats

Yamaha 4 speed recorder $3095.

"We recommend the Yamaha CDR100"
- MacWorld Mar. '95

Ricoh 2 Speed Recorder External — Create music, interactive, and photos.
10 CDs for $89 — Call for information on this drive!

MEDIA

128MB Optical	$ 25	60M Tape	$ 10
230MB Optical	$ 29	90M Tape	$ 12
1.3GIG Optical	$ 85	112M Tape	$ 15
10 Blank CD's	$ 89	120M Tape	$ 20
88MB Squest	$ 48	200MB Syquest	$ 76
105MB Syquest	$ 54	270MB Syquest	$ 61

Our top rated RAID Systems include an Atto accelerator card, Remus RAID software, and all cabling.

RAID SYSTEMS
FROM 1 TO 84 GIG

"Stick with a vendor such as Direct Connections that understands how to prepare a RAID for desktop video." MacWorld April '95

- 2.0 GIG RAID Level 0. Perfect for highspeed requirements. $ 2199
- This Array is the one to beat!! 4.0 GIG Wide Raid $ 3399
- 8.0 GIG Fast and Wide Raid $ 3999

Atto Silicon Express IV $835 accelerator card

VideoVision Studio $ 3649
Full screen and full motion recording and playback with JPEG hardware compression and decompression. radius

The New Sony 1.3GB half-height has 4MB of Cache and 3600rpm making this the fastest Optical drive in the market today! Call for comparisons against the competition.

OPTICAL DRIVES

$1949.

1 YEAR WARRANTY

ALL OPTICAL DRIVES INCLUDE CARTRIDGE, CABLING, AND SOFTWARE.

CAPACITY	MODEL	EXTERNAL
230MB	Fujitsu	$ 575
1.3GB	NEC	$ 1599
1.3GB	Sony 4MB cache	$ 1949
1.3GB	Ricoh Turbo	$ 2175
Sony's latest technology → 26GB	Sony Jukebox	$ 6395

TAPE BACK-UP

2 YEAR WARRANTY

We are the tape-backup Experts

40GIG

With 2.5mb/sec sustained transfer, the DLT4000 is perfect for digital video or pre-press with large data files.

$4999.

All enclosures include one tape cartridge, cabling, and Retrospect software.

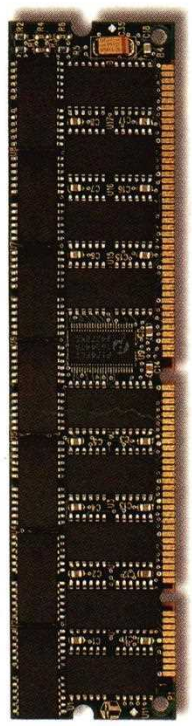
CAPACITY	MODEL	MEDIA	INTERNAL	EXTERNAL
1GIG	Tandberg	1/4"		$ 449
1.3-2GIG	DC DAT	4MM	$ 709	$ 769
1.3-4GIG	DC DOUBLE DAT	4MM	$ 839	$ 899
4.0-8GIG	Sony 5000 DDS-2	4MM	$ 939	$ 999
7.0-14GIG	Exabyte 8505XL	8MM	$ 2135	$ 2195
-32GIG	Conner Autoloader	4MM		$ 2475
-40GIG	DLT4000	1/2"		$ 4999
-50GIG	Exabyte-10i	8MM		$ 2895
-140GIG	Exabyte-10h Library	8MM		$ 4999

TECHWORKS MEMORY SOLUTIONS: OVER 4 MILLION PERFORMANCE UPGRADES INSTALLED

DO YOU WANT ALL THE LATEST IN MAC MEMORY TECHNOLOGY?

SIMMS, DIMMS, VRAM & CACHE CARDS

TECHWORKS, THE LEADING MANUFACTURER OF MACINTOSH MEMORY UPGRADES, INTRODUCES A COMPLETE FAMILY OF UPGRADE SOLUTIONS FOR THE LATEST POWER MACS. IF YOU'RE LOOKING FOR INCREASED PERFORAMCE AND USABILITY, CHECK OUT OUR NEW LINE OF DIMMS—MEMORY, CACHE CARDS, AND VIDEO RAM ENGINEERED SPECIFICALLY FOR THE NEW GENERATION OF ADVANCED POWERPC PROCESSORS. MEMORY MODULES ARE AVAILABLE IN CONFIGURATIONS FROM 8MB TO 128MB, AND OFFER THE SPEED AND POWER DEMANDED BY POWER MAC USERS. CACHE CARDS CAN INCREASE POWER MAC PERFORMANCE BY AS MUCH AS 45%. VIDEO RAM



ALLOWS YOU TO SHOW MILLIONS OF BRILLIANT COLORS ON YOUR MONITOR. WHEN YOU CHOOSE DIMMS FROM **TECHWORKS**, YOU GET MORE THAN THE LATEST IN MEMORY TECHNOLOGY. YOU ALSO HAVE THE COMFORT OF KNOWING ALL OF **TECHWORKS** PRODUCTS ARE BACKED BY OUR 5-WAY OUTRAGEOUS CUSTOMER SERVICE GUARANTEE: LIFETIME WARRANTY, TOLL-FREE TECHNICAL SUPPORT, 30-DAY MONEY-BACK GUARANTEE, 24-HOUR REPLACEMENT AND A CASH-BACK MEMORY TRADE-IN PROGRAM. SO CALL **800-704-0189** TODAY TO LEARN MORE ABOUT THE LATEST IN MAC DIMM TECHNOLOGY, AND GIVE YOUR POWER MAC THE POWER TO PERFORM.™

CALL 800-704-0189

TECHWORKS

Power To Perform™

TechWorks, 4030 West Braker Lane, Austin, Texas 78759-5319. Business Line: 512-794-8533, Fax: 512-794-8520. TechWorks, UK., 4 Dolphin Square, Edensor Road, London, W42ST. Business Line: +44 (0) 181 490 9500, Fax: +44 (0) 181 490 9501. Corporate PO's Accepted, all major credit cards honored and volume discounts are available. TechWorks offers memory upgrades for virtually every Macintosh and PC made. Call for product availability and pricing. TechWorks® is a registered trademark of Technology Works. All other names are trademarks of their respective companies.

LIFETIME WARRANTY

It'll always perform, or we'll replace it free.

TOLL-FREE TECHNICAL SUPPORT

Technical Support? We're here to help you. At no charge.

MONEY-BACK GUARANTEE 30-DAY

Don't like it? Return it. It's just that simple.

TWENTY-FOUR HOUR REPLACEMENT PROMISE

Problem? We'll replace it via overnight delivery.

MEMORY TRADE-IN

Cash-back for most SIMMs & DIMMs.

OUTRAGEOUS CUSTOMER SERVICE

Outrageous Customer Service.

MarketPlace

THE SOURCE FOR DIRECT BUYERS OF MACINTOSH PRODUCTS, SERVICES AND INFORMATION

ADVERTISERS' INDEX

Hardware
(Includes Bar Coding, Boards, Communications/Networking, Computer Systems, Peripherals, Used Equipment)

Bason Computer 67
Boxlight Corporation 62
Chip Merchant 56
Compu-D 60
Computer Chow 67
Computer Design & Graphics 60
Computer Guys 66
Computer Town 60
Cutting Edge 67
Data Computer Center 67
Data Memory Systems 66
Datatech Remarketing 69
Datatek 67
Diamond Computer Resources 66
Digital Publishing 69
Dvc/Digital Video Concepts 55
Ge Rental/Lease 69
Griffin Communications Co. 68
Hawke Business Systems 69
ICN 67
Innovative Micro Products 66
International Datawares, Inc. 68
Kahlon, Inc. 68
LA Computer Center 60
Mac Attack 61
Mac Base 58
Mac Brokers 67
Mac Net 60,67,68
Mac Professional 60
Mac Rentals 69
Mac Sale International 65
Mac Solutions 66
Macadapt 68
Mace Group/Macally 56
Macintosh Accessory Center 68
Macstorm International 66
Maxed Systems 69
Media Store 68
Megastor 63
Memory Direct 56
Memory Merchants 69
Micro Outlet 67
Micron Computer, Inc. 55
Microtech International, Inc. 64
MPD 59
Newer Technology 58
Nomus, Inc. 63
Other World Computing 59
Peripheral Outlet 58
Pre-Owned Electronics 69
Promax Technology 62
Rapidata 69
Reply Corporation 62
Sayett Technology 63
Shreve Systems 70,71
Simm Saver Technologies 66
Sonnet Technologies 56
Super Micro 61
Syzygy Electronics, Inc 55
Tahoe Peripherals 57
T.D. Curran 68
Trinity Works 66
United Computer Exchange 69
Vst Power Systems, Inc. 62
Westwood Computers 60
XLR8 66

Software
(Includes Bar Coding, Business Management, CAD-CAM, Communications/Networking, Desktop Publishing, Education, Finance, General, Graphics, Multimedia)

APT Communications, Inc. 64
Cypress Research 54
Miramar Systems, Inc. 54
Natural Intelligence 54
Shana 64
Tenon Intersystems 54
Tellan Software 69
Vicom Technology 69

Special Services
(Includes Digital Output Services, Disk Duplication, General, Graphics, Programming/Consulting, Rental/Leasing, Repair/Recovery Services, Toner Recharging, Training)

3E Corp. 72
800wefixmacs 72
Cyberlinx 72
Drivesavers 72
Dt&t Macintosh Services 72
Imagers 72
Isomedia 72
Lazarus Data Recovery 72
On Track Data Recovery 72
Quay II Multimedia 69
Soft Solutions 72
Total Recall Data Recovery 72
Wordtech 69

Accessories
Microstore 72
Moustrak 72

CD ROM
Catalogic Corporation 72

Career Opportunities
Acuson 73
Channing L. Bete Co., Inc. 73
FGM, Inc. 73
Microtech International, Inc. 73
The Cherenson Group 73

ACCOUNT REPRESENTATIVES **800-825-4ADS**

Manuel Fuentes (Asst. Sales Mgr.) ♦ Juan Cail ♦ Erik Weigel ♦ Michele Imfeld ♦ Jillian McAlley

Call 1-800-999-4649 now to order NEW DragStrip 2.0, the Ultimate Desktop Organizer, at its limited-time introductory price!

The **NEW DragStrip 2.0** makes navigating your desktop even easier with the following **NEW** features:
- ability to see names of items on buttons
- extensive AppleScript support
- countless options for labeling, coloring, resizing, and modifying your strips
- even more **DragStrip** Additions!

"DragStrip is a powerful program that I leave open at all times." -*Tidbits*

"DragStrip is so simple and so incredibly useful, it can help you minutes after you install it." - *Boston Computer Society*

NEW 2.0

Come see us demo **DragStrip 2.0** *at Macworld Boston! Booth #5639*

$39.95
Mention special discount password! CTROP7

Natural Intelligence
Check out our web site!
http://www.natural.com/

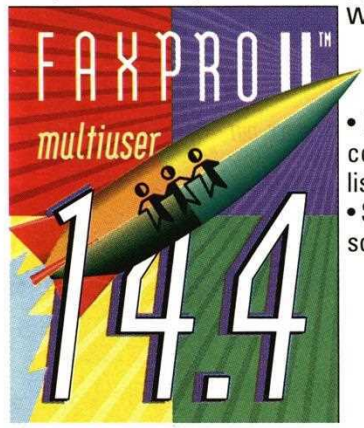
Call for upgrade pricing!

All trademarks are the property of their respective holders.

DragStrip™
The Ultimate Desktop Organizer

You Can't Buy a Faster Network Fax System

FaxPro II 14.4™ offers your network users the cost-saving speed of 14.4 kbps fax coupled with Cypress' ultra easy-to-use multiuser fax software. FaxPro II's features build upon the award-winning original FaxPro™.



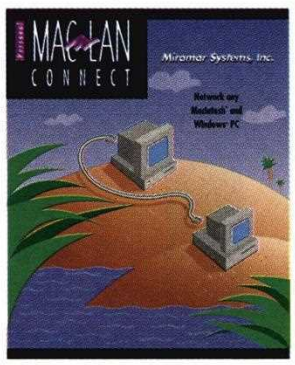
Features include:
• Fax send and receive • Automatic fax queuing and conversion on the server • Address book with mailing list function • Operates on virtually any type of network • System 6 and 7 compatible • Complete hardware and software system

For additional information call: 408-752-2700.
Cypress Research Corporation
240 East Caribbean Drive
Sunnyvale, California 94089
Fax: 408-752-2735 AppleLink: CYPRESS

Macintosh to Windows
Peer to Peer File & Print Sharing
$199

NEW! Personal MACLAN Version 5.0 is the ONLY cross platform networking software that provides peer-to-peer file and printer sharing between Macintosh and Windows PC's. Macs can share files from any Windows workstation through Chooser. PCs can mount local Macintosh drives as a logical drive letter.

- Share any PC hard drive, floppy or CD-ROM with your Macs
- Share any Mac hard drive, CD-ROM, floppy with your Windows PC
- Print from Windows to any AppleTalk printers
- Print from the Macintosh to any Windows PostScript printers
- No special software required for the Mac users
- Backup your PC from your Mac
- New 32 bit AppleTalk VxD provides better performance
- Compatible with Windows for Workgroups, NetWare and other LANs



InfoWorld 6/19/95 *"If you want to do peer-to-peer networking with PCs and Macintoshes, you need this program."*

Call Now to Order!!
(800) 862-2526 or (805) 966-2432

Miramar Systems, Inc.

Make your Macintosh an Internet Server

"MachTen is a full-fledged UNIX operating system that has all the networking software processes necessary to turn a Mac into an Internet host."
MacUser, March, 1995

With MachTen, your Mac can be a domain name server, POP mail server, and Web server. Check out our Web site or give us a call.

http://www.tenon.com
sales@tenon.com
1-800-6-MACH-10

TENON INTERSYSTEMS

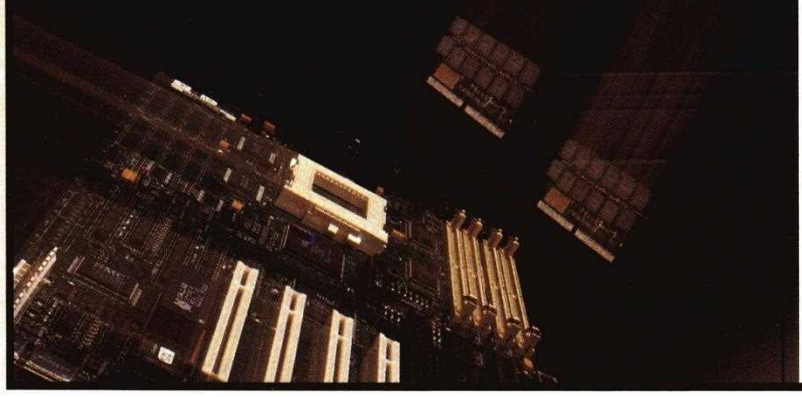
1123 Chapala Street • Santa Barbara, CA 93101
Phone: 805-963-6983 • FAX: 805-962-8202

MEMORY

FACTORY DIRECT PRICES

CALL MICRON MEMORY DIRECT!

Our knowledgeable sales staff will put you on the road to POWER!



1 X 8	call	2 X 32	call
4 X 8	call	4 X 32	call
1 X 32	call	8 X 32	call

OTHER MEMORY UPGRADES ALSO AVAILABLE

- FACTORY DIRECT PRICING
- LIFETIME WARRANTY
- 30-DAY MONEY BACK GUARANTEE
- INSTALLATION INSTRUCTIONS INCLUDED
- U.S.A. MADE QUALITY AND RELIABILITY
- SAME DAY SHIPPING
- VISA, MC, AMEX ACCEPTED

MICRON ELECTRONICS, INC.

800-259-6579

MON-FRI 7AM - 6PM / SAT 9AM-3PM (MT)
915 E. Karcher Road • Nampa, Idaho 83687
FAX (208) 465-1740 Purchase Order FAX (208) 465-1740

©1995 Micron Computer, Inc. All rights reserved. All prices and specifications subject to change without notice. Micron Computer, Inc. cannot be responsible for omissions, errors in typography or photography.

We Buy Used Memory

Computer memory is resilient. This means that it will last forever in a landfill. Memory Traders pays fair market value for any used computer memory. We refurbish the chips for reuse by manufacturers.

We Buy:

- 30 or 72pin
- Any Configuration
- Any Size
- Any Speed
- Any Manufacturer
- SIMMs, SIPPs, or Chips
- Working or Broken
- Any Quantity

256K
512K
1MB
2MB
4MB
8MB
16MB
32MB
64MB
VRAM
IIfxSIMMs
PB & Duo

PS: If you are a School or Church and have received unwanted, unusable, too small, or misconfigured RAM from unsolicited sources then call us and we'll trade it for cash!

We sell Memory Upgrades

- 30 Pin & 72 Pin
- Major Manufacturers Chips
- Lifetime Guarantee
- Free UPS Shipping
- VISA/MC No Fees
- Competitive Pricing

Call Today! Let our friendly, Mac literate staff help you.

800-315-7807

MEMORY TRADERS

1117 North 19th Street #1201 Arlington VA 22209

ACCELERATE YOUR POWERMAC

Acceleration for your 6100, 7100, Performa 61xx and 8100/100 computer

The DVC Equalizer™ speeds your PowerMac 6100/7100 up to 84MHz and your 8100/100 up to a thundering 126MHz!

Custom connector provides easy slip-on, slip-off acceleration
6100/7100 has selectable speeds from 76MHz-84MHz
8100/100 has selectable speeds from 110MHz-126MHz

Do not be misled. With thousands sold, accept only the DVC Equalizer™!

Add EVEN MORE POWER

PowerMac L2 Cache
256K.....$125
512K.....$259

Includes

- DVC Equalizer™ accelerator
- Low noise, high output CPU fan
- Selectable CPU speeds
- Detailed manual
- Bench testing software disk
- Installs in under 5 minutes
- 20-40% speed increase
- No permanent modifications
- Toll-free technical support
- 30-day money-back guarantee
- 1 year warranty
- **Only $79.95**

Quantity discounts available

FedEx All orders delivered next day

NEW DIMMs

Now Available for Power Macintosh 9500,8500,7500,7200
All memory is new, sealed and comes with a lifetime warranty.

4Mb 8Mb 16Mb 32Mb 64Mb

Call for best price!

30 THIRTY DAY MONEY BACK GUARANTEE ! HIGH QUALITY AND RELIABILITY

Power Macintosh 9500/120 VRAM Daughter Board.....$CALL

FREE FedEx Overnight Delivery on all DIMMs

SimmSaver Technology, Inc.

DIMMSaver

Converts two 72-Pin SIMMs into a single DIMM!

DIMMSaver	$59
DIMMSaver/R	$69

800.889.5137

417.889.5113 Phone 417.889.7980 Fax

VISA MasterCard AMERICAN EXPRESS

DVChardware™

MacALLY™ Peripherals

Join our MacALLY team:

See us at MacWorld Boston
Bayside Expo Center Booth # 551

Dealers & VARs, please CALL: 1•800•644•1132

105 EXTENDED KEYBOARD

Superb keyboard, excellent Key Switch, quiet soft touch with positive tactile feedback. Best among 3rd party keyboards.

EXT. DUO ENCLOSURE

2 in 1 the ultimate storage solution in terms of design, quality, renovation & reliability

TRANCEIVER/HUB

5 port Hub with built in Transceiver. One and only do-it-yourself network by connecting an AAUI cable to 1 node & using 4 10BaseT TP ports to any Apple compatible transceivers.

MOUSE

Superior optical mechanical encoding delivers precision pointing with a resoloution of 275 dpi

Total solutions

mgi Manufactured & Distributed by:
MACE GROUP INC.
2550 Corporate Place #C 101, Monterey Park, CA 91754

All trademarks or registered trademarks are the property of their respective owners

MAC MEMORY 72 PIN

4MB	$144
8MB	$289
16MB	$474
32MB	$949

VIDEO RAM

256K VRAM	$18
512K VRAM	$38

MILLIONS OF COLORS!

NEW POWER PC DOS COMPATIBILITY CARD MEMORY UP TO 32MB

COMPAQ · HP · IBM LASER PRINTERS AND MORE!

(800)486-2447

SAME PRICE CASH OR CREDIT CARD

THE GUARANTEED BEST DEAL ON MEMORY, DIRECT! TO YOU. CALL NOW!

MEMORY DIRECT! SINCE 1984

POWERMAC MEMORY

8MB KIT	$288
16MB KIT	$578
32MB KIT	$948
64MB KIT	$1,898

MAC MEMORY 30 PIN

1MB	$34
2MB	$79
4MB	$124
8MB	$299
16MB	$549

POWERBOOK MEMORY

500 SERIES UP TO 32 MB
ALL OTHER SERIES UP TO 20 MB FROM $159

INTERNATIONAL +1(714)848-5958
7921 Professional Circle
Huntington Beach
California, 92648
FAX (714)847-5043

Terms & conditions RMA numbers are required for all returns. All unopened, refused or non-defective returns will be subject to a 15% restocking charge. Prices are subject to change without notice.

Best Accelerator Price/Performance!

BUY DIRECT FROM MANUFACTURER & SAVE! • EXPERT SALES CONSULTANTS! • ONE YEAR WARRANTY • SUPERIOR TECHNICAL SUPPORT • SAME DAY SHIPPING • SINCE 1986

Accelerator	CPU	Speed	Macintosh	no FPU	FPU
QuadDoubler	68040	50MHz	Quadra 610, 660AV, 700, 900, C650		$599
QuadDoubler	68040	40MHz	Centris 610	$249	$399
Speedster	68040	40MHz	Mac IIci, IIx*, IIsi*, IIcx* (Adapter*)	$399	$599
Presto LC	68040	25MHz	Mac LC, LC II, Performa 400-430		$349
LC II Doubler	68030	33MHz	Mac LC II, Performa 400-430		$149
LC Booster	68020	25MHz	Mac LC		$99
Allegro	68030	25MHz	Mac SE, Classic	$199	$249
Mac II Doubler	68030	33MHz	Mac II, IIx, SE/30	$189	$239
FPU(w/LC040 trade-in)	68040	25MHz	Quadra 605, Centris 610, 650, LC475		$149
FPU(w/LC040 trade-in)	68040	33MHz	LC/Performa 570 series & 630 series		$249
FPU & Speed Boost	68040	33MHz	PowerBook 520,540 (installed)		$449
FPU	68882	16-33M	LC/II/III, Clr Classic, Dock, IIsi, etc.		$49
PMMU w/MODE32	68851	16MHz	Mac II	$99	
80MHz Booster/256K Cache			PowerMac 6100, 7100, P6115	$69/$125	
660AV, IIsi NuBus Adapter				$149	

Start At $249

Double Speed!

Plug and Play!

The Sonnet QuadDoubler plugs into the CPU socket and includes a 68040 that runs at twice the speed of your existing 040 CPU! No additional software required. 100% software compatible!

No Surcharge MasterCard
Gov't./Corp./Education P.O.

SONNET TECHNOLOGIES, INC., 18004 Sky Park Circle
Irvine California 92714 714-261-2800 Fax 261-2461
800-786-6260

No Surcharge VISA
Member Better Business Bureau

THE Chip MERCHANT

How Can Anyone Afford Not To Compare Our PRICES?

MAC 30-pin SIMMS

1MB-80/70/60		34.00/35.00/35.50
2MB-80/70/60		70.00/72.00/74.00
4MB-70/60	(2-chip)	118/118
4MB-80/70/60	(8-chip)	134/138/138
4MB-80/70	(w/PAL)	140
8MB-70	(4-chip)	280
16MB-70/60	(8-chip)	490/495
Mac II fx SIMMs	(1,4,16 MB)	28/146/510

Used Memory Sales

Save $$$'s purchasing used memory!!!
All used memory carries our LIFETIME WARRANTY!
To purchase used memory, call ext.3.
Call today for more information!!!

MAC 72-pin SIMMS

4MB-70/60	(2-chip)	130/CALL
4MB-80/70/60	(8-chip)	129/131/133
8MB-70	(4-chip)	260
8MB-80/70/60	(16-chip)	260/262/264
16MB-70/60	(8-chip/2K)	472/475
16MB-70/60	(8-chip/4K)	420/435
32MB-70/60	(16-chip/2K)	945/945
32MB-70/60	(16-chip/4K)	840/860

Used Memory Buyback

Get $$$'s for your memory!!!
We purchase SIMMs from 256K up to 32 meg, Powerbook modules, DUO modules, & MAC VRAM!
To sell your used memory, call ext.7.

DIMMS (PM 9500...)

8MB-70	(4-chip)	300
16MB-70	(8-chip)	550
32MB-70	(16-chip)	990
64MB-70	(32-chip)	CALL

POWERBOOK MEMORY

PB 100	6MB.....170
PB 140, 145, 170	6MB.....150
PB 150	4/8/12/20MB.160/300/445/730
PB 160,165,180	4/6/8/10MB.115/170/240/290
PB 165C,180C	4/6/8/10MB...115/170/240/290
PB 520(C)/540(C)	4/8/16/32MB.160/300/570/1135
ALL DUO'S	4/8/12/14/20/28MB.....CALL

POWERMAC CACHE

256K 2nd Level Cache	120
256K 2nd Level Cache	240

LIFETIME WARRANTY on ALL Mac Products & Printer Memory. Other chips available. Prices reflect cash discount. U.S. Government and University PO's accepted. Fax # 619-268-0874. Prices subject to change without notice.

ORDERS (800) 426-6375 (Ext. 3) INFORMATION (619) 268-4774

4870 Viewridge Ave., San Diego, CA 92123

MasterCard VISA

Memories from Tahoe

Now shipping DIMMS for the new PowerMacs

72 PIN MAC SIMMS

All PowerMacs 6100, 7100,8100 • Quadras • Centris• •Performa • LC's

4 Mb (1X32 - 70/60)	CALL
8 Mb (2X32 - 70/60)	CALL
16 Mb(4X32 - 60)	$475
True 2K Refresh	
32 Mb (8X32 - 60)	$950
True 2K Refresh	

30 PIN MAC SIMMS

• Quadra 900, 950, 700 - IIV vx, IIci, IIsi, SE30, LCII, etc.

1X8 - 80 (8 chip)	$36
2X8 - 70	$81
4X8 - 70	$123
8X8 - 70 (8 chip)	$310

Network Cards

ASANTÉ

We are proud to announce the addition of Asante to our line of quality products. Call for latest prices.

SCANNERS

Polaroid Sprint Scan 35mm Slide Scanner Now Available

$1899

DAYSTAR® DIGITAL FREE SHIPPING ! Call for details

Accelerator Cards

Processor Upgrades

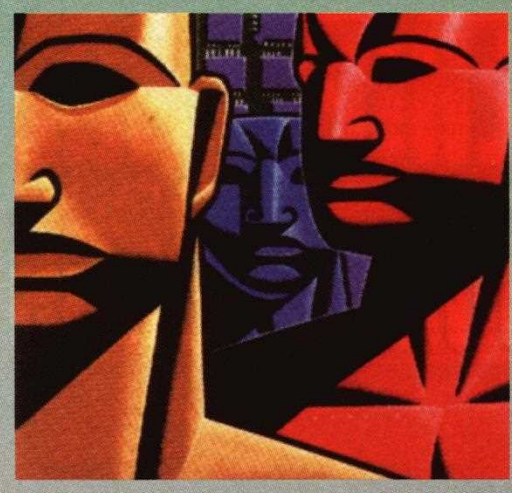
80 MHz PowerPro 601 w/cache.	$1799
Fastcache PowerPro	$ 499
66 MHz Turbo 601	$ 969
40 MHz Turbo 040	$ 769
33 MHz Turbo 040i(no FPU)	$ 589
PowerCard 601	$ 619

All 100 MHz Cards $1479*

***with factory rebate**

Turbo 040 Adapters available. Call for pricing.

GOVERNMENT EDUCATIONAL AND CORPORATE P.O.'s WELCOME, TERMS TO QUALIFIED CUSTOMERS.



Kingston TECHNOLOGY CORPORATION

Authorized Kingston Reseller

Call for memory, processor & storage upgrades from ACER to ZENITH

Power Mac Cache Memory

Mac 6100,7100

256K	2nd level	$147.50
512K	2nd level	$294.00

Power Book 500 Series (Uses Self Refresh Dram)

4 Mb	Kingston Memory	$204
8 Mb	Kingston Memory	$329
16 Mb	Kingston Memory	$647
24 Mb	Kingston Memory	$966
32 Mb	Kingston Memory	$1284

All Apple computers not listed, call for pricing.

Technical Support

714 - 435 - 2639

Toll Free order line: 1-800-288-6040

where real people answer the phone !!

Our Commitment to You

- Δ All product meets or exceeds Apple's original specs.
- Δ All modules use NEW DRAM late 1994 datecode
- Δ All deliveries will be made on promise date or WE PAY.
- Δ All memory modules carry a LIFETIME WARRANTY.

Resellers Welcome Order Line: ext.1776 • Gov't Order Line: ext.1954
International Order Line: 0101-702-832-3600 • Fax: 702- 832-3611

All prices reflect cash discount. Prices subject to change without notice. NEVADA RESIDENTS only must add applicable sales tax.

VISA MasterCard **Credit cards are verified for fraudulent use.**

SAME DAY SHIPPING

Tahoe Peripherals

Tahoe Peripherals, 999 Tahoe Blvd, # 301, Incline Village, NV 89451

PERIPHERAL

PERIPHERAL OUTLET, Inc.

800/259-8989

We are the *FIRST* to have developed 8, 16, 32, and 64 MB DIMMs for the new PowerMacs! *Call for Pricing!*

72 Pin Memory *for the new Macs*

	80ns	70ns	60ns
4 Megabyte			
8 Megabyte			
16 MB-Non Composite			
32 MB-Non Composite			

Prices Changing – Call for Best Prices!

PowerBook 100-series Memory

2, 4, 6, 8, and 10 Megabyte Upgrades

Prices Changing –Call for Best Prices!

PowerBook 500-series Memory

4 / 8 Megabyte upgrade ..... 169.00 / 329.00
16 / 24 Megabyte upgrade ..... 649.00 / 1025.00
32 Megabyte upgrade 1269.00

All PowerBook memory upgrades include necessary tools, static protection, and instructions for safe installation.

Duo-series Memory

4 / 8 Megabyte upgrade ..... 169.00 / 329.00
12 / 14 Megabyte upgrade ..... 489.00 / 569.00
20 / 28 Megabyte upgrade ..... 795.00 / 1095.00

Cache Cards, Etc.

256K Level 2 Cache Card for PowerMacs 139.00
512K & 1 MB Level 2 Cache for PowerMacs ..... CALL
128K Cache Card for Quadras ..... from 125.00
128K Cache Card for LCIII & Performa 450 ..... 129.00
IIci/IIsi 64K Cache Card 125.00/159.00
IIsi 2-slot Card and 68882 ..... 119.00
Slot-Free Cache Card for LC 475 ..... 195.00
Slot-Free Cache for 660AV, 700, 900, 950 ..... 245.00

Standard 30 pin SIMMs

1, 2, 4, 8, and 16 Megabyte SIMMs

Prices Changing –Call for Best Prices!

Video RAM

256K VRAM 80ns ..... CALL
512K VRAM 80ns 35.00

68882 Math Coprocessors

68882 25 MHz FPU 49.00
68882 33 MHz FPU 59.00
68882 50 MHz FPU 99.00
25 MHz for Macintosh LC/LCII 55.00
20 MHz w/2 slots for Mac IIsi 119.00
25 MHz for Mac Classic II 55.00

Newton Upgrade Products

512K Static RAM Storage Card 89.00
1 Megabyte Static RAM Storage Card 124.00
2 Megabyte Static RAM Storage Card 235.00
2 Megabyte Flash Storage Card 99.00
4 Megabyte Flash Storage Card 169.00
8 Megabyte Flash Storage Card 299.00
16 Megabyte Flash Storage Card 565.00

Miscellaneous

LaserWriter 320 2,4, 6MB upgrades ..... CALL
LaserWriter Pro 810 4MB/8 MB upgrades 229/399
T.I. MicroLaser 1 MB 49.00
Mac Classic 1 MB Board 75.00
68851 16MHz PMMU 89.00
if requested, MODE 32 software included free w/PMMU
Mac Portable 3-7 MB Cards ..... CALL

Due to volatility in the market all prices and availability are subject to change without notice.

ACCELERATORS

50MHz Accelerator $389

MacUser ★★★★½

Speed increases of up to 400% with the DiiMOCache 50MHz 68030 Accelerator. Awarded 4½ Mice in MacUser's April 93 Accelerator review, the DiiMO outperformed not only DayStar's PowerCache 50MHz but also most of the 68040 25MHz accelerators. The DiiMOCache 50MHz runs on the LC, LCII, LCIII, II, IIx, IIcx, IIci, IIvi, IIsi, SE/30, and the Performa 600 and Performa 400 series. Call for adapter prices.

DiiMOCache 50MHz Accelerator without FPU $389.00
DiiMOCache 50MHz Accelerator with FPU $449.00

68040 50 MHz Accelerator $799

The DiiMOCache '040/50 Accelerator will make your Macintosh as fast as a PowerPC, even in native mode. And you won't have to buy new software. The DiiMOCache '040/50 is a 68040 accelerator boosted to 50MHz with 128K Static RAM Cache. Its Slot-Free design keeps your PDS and NuBus slots free for other cards. Several models support the Quadra 610, 630, 650, 660AV, 700, 800, 900, 950 and Centris 610 and 650. Soon shipping for more 68040 Macs!

DiiMOCache 68040 50MHz Accelerator $799.00

68040 Processor with FPU $279

For the Centris and Quadra 605, 610, 650 and 660AV, and the Performa 475/476 and LC 475.

33MHz for Quadra 650 and LC 575 ..... $399.00
40MHz – CALL! Heat Sink – $19.00

PERIPHERAL OUTLET, Inc.

327 East 14th, PO Box 2329 • Ada, Oklahoma 74820
405/332-6581 FAX 405/436-2245 AppleLink-PERIPHERAL
HOURS: Monday–Thursday 6AM-7PM CST, Friday 6AM-6PM

INTERNATIONAL TOLL FREE NUMBERS FOR DEALERS ONLY:
Japan 0066 33800 120, UK 0800 962 058, Sweden 020 797 857
Norway 800 12698, France 0590 1997, Australia 1 800 122 764
Germany 0130 818 983, Netherlands 0602 26638

We accept Visa/MC/Amex/Discover, and COD Cashiers check upon approval. Educational, Government, and Fortune 500 P/Os accepted upon approval.

SAVE MONEY!

Peripheral Outlet will buy your old memory at great prices, even if you didn't buy it from us! Call for details.

TOLL FREE TECH SUPPORT

Our tech support and installation instructions are the best in the industry!
LIFETIME WARRANTY on all memory products
Order by 6:30PM CST for same day shipping*
Overnight delivery from $8.00 *some restrictions apply

ETHERTECH™ FOR ETHERNET. IT DOESN'T GET ANY FASTER THAN THIS. JUST MORE EXPENSIVE.

Newer's EtherTech Network Card can take data transfer all the way to Ethernet's 10 Mb/sec. outer speed limit. It's even faster than the Apple® version. The catch is, it costs a lot less.

For as little as $73, you not only get all that incredible speed, but you also get the 10BaseT cable, driver disk and two-year warranty.

So if you want more performance from your Ethernet cards, you've got it. But you're just going to have to pay less.

EtherTech C10 for any Mac with a COMM slot. Still a bargain at just $88.

EtherTech L10 for any Mac™ with an LC/PDS slot. Just $73.

800-678-3726

Toll-Free Technical Support
30-Day Money Back Guarantee
100% Guaranteed Compatible

Newer™ TECHNOLOGY

7803 E. Osie, Suite 105
Wichita, KS 67207
Phone: 316-685-4904
Fax: 316-685-9368

INNOVATORS IN POWER & PERFORMANCE

Newer Technology is a trademark of Spectrum Engineering, Inc. EtherTech is a trademark of Newer Technology. Apple and Mac are trademarks or registered trademarks of Apple Computer Company, Inc. All other product names are trademarks or registered trademarks of their respective holders. Specifications subject to change without notice. ©1995, Newer Technology.

LOWEST PRICES GUARANTEED

Mac CPUs

6100/66 8/500	CALL
6100/66 8/500/CD	$1569
7100/80 8/500	CALL
7100/80 8/700/CD	$2199
7100/80av8/700/CD	CALL
8100/100 16/1GB/CD	CALL
8100/110 Mhz 16/2GB/CD	$4895
9500/120Mhz 16/1GB/CD	$4295
PERFORMA 6200 8/1GB/CD	$2095
PERFORMA 5215 8/1GB/CD	$2095

CALL FOR OTHER MAC PRODUCTS

PB 540c 4/320	$2449
P630 8/250/CD W/KB	$795
P630 4/250 W/KB	$559
APPLE 21" DISPLAY	$1099

FACTORY REFURBISHED

APPLE FACTORY REFURBISHED W/90 DAYS WARRANTY

PowerBook

PB 520 4/160	$1499
PB 520c 12/240/MOD	$2429
PB 540C 4/320	$2799
PB 540C 12/320/G.V 19.2B	$3495
PB 150 4/120	$998

APPLE HARD DRIVE BLOW OUT!

Size	INT	EXT
700MB	$249	$299
500MB	$219	$269
160 2.5"	$129	$189

Custom Configuration

MacBase™ USA

(800)951-1230

FAX (310)498-0032 Since 1988 FedEx

International (310)498-1230

1941 B Freeman Signal Hills, CA 90804

HOURS : M-F 8-6 PST SAT 10-2

MacBase Offers :

Prices reflect cash discounts and subject to change without notice.

WEEKLY SPECIALS

LC 550 4/160 W/14" TRIN. MON.	$699
Quadra 630 4MB	$759
6100/66 16/500/CD/DOS	$2069
8100/100 16/700/CD	$2998
LaserWriter 360 PS	$998
PB 520c 4/240	$1795
LASERWRITER PRO 16/600	$1595
Color StyleWriter Pro	$499
Apple 15" Multi-Scan	$439
Apple Extended KB	$129
4X CD ROM EXTERNAL	$225

MEMORY

MAC 72-PIN

4MB 60ns/70ns	Call/$139
8MB 60ns/70ns	Call/$285
16MB 60ns/70ns	$449/$439
32MB 60ns/70ns	$919 /$899

BEST BUY!

POWER MAC 9500 168-PIN

4MB DIMM	$195
8MB DIMM	$369
16MB DIMM	$599
32MB DIMM	$1095
64MB DIMM	$2195

PB 500 SERIES

4MB UPGRADE	$169
8MB UPGRADE	$319
16MB UPGRADE	$589
32MB UPGRADE	Call

In Stock

PB 100 SERIES

4/8/10MB(145B,165,180)	$129/$229/$329
4/8/10MB (PB145B,165,180)	Call
4/8/12/20/28/36 MB (PB150)	Call

SAVE

VIDEO/ CACHE

256K/512K	$16/$33
256K/512K CACHE LEVEL2	$155/$369

MEMORY PRODUCTS ARE NEW W/ LIFETIME WARRANTY

NO CREDIT CARD SURCHARGE

OtherWorld Computing

THE ADVANCED TECHNOLOGY SUPPLIERS SINCE 1988

800-275-4576

224 W. Judd Street, Woodstock, IL 60098
M-F 9am-8pm, Sat. 9am-4pm, Sun. 12pm-4pm
On the Internet: comp sales@aol.com

FAX: 815-338-4332
FAX YOUR ORDER 24 HRS. PER DAY, 7 DAYS A WEEK!
INTERNATIONAL: 815-338-8658

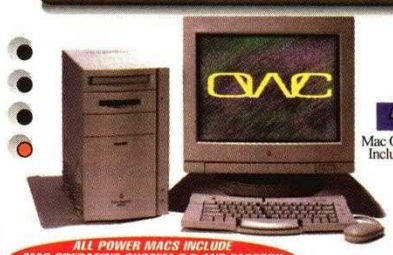
School and Government Purchase Orders Accepted.
OWC Will Beat The Best Price You Can Find!

Price Beat Guarantee subject to verification and approval. Returned merchandise is subject to 15% restocking fee unless otherwise specified. Call for Return Authorization. Prices and specifications are subject to change without notice.

FedEx Federal Express · VISA · MasterCard · American Express · Discover · C.O.D. — NO CREDIT CARD SURCHARGE AT OWC!

COMPETITIVE RATE BUSINESS LEASING AVAILABLE!
CALL FOR AN IMMEDIATE QUOTATION.

POWER MAC'S



ALL POWER MACS INCLUDE MAC OPERATING SYSTEM 7.5 AND FACTORY INSTALLED 256K LEVEL 2 CACHE.

CALL FOR NEW 8500 & 9500 PCI CONFIGURATIONS AND DIMM MEMORY FOR PCI IN 4 TO 128 MEG MODULES!

6100/66 8/500 1499
6100/66 8/500/CD 1679
6100/66 16/700/CD . SAVE! 1999

7100/80 8/500 2049
7100/80 8/700/CD 2399
7100/80 40/1000/CD SAVE! 3389
7100/80AV 16/700/CD 3499

8100/100 8/700 2749
8100/100 16/1000/CD 3399
8100/100 40/1000/CD SPECIAL 3899
9500/120 16/1000/CD 4399

KEYBOARDS

Apple Design Keyboard 80
Apple Extended Keyboard II ... 139

Mac Ally 105 Extended ... 69
Mac Ally Standard with F-Keys . 55

HARD DRIVES

30 DAY MONEY-BACK GUARANTEE ON ALL OWC HARD DRIVES

Apple System Software 7.1 and 30 megs of Shareware and public domain software come installed on all OWC hard drives, PLUS SCSI Director formatting software.

EXTERNAL HARD DRIVES FEATURE A COMPACT SIZE (8.25" DEEP C 6.25" TALL X 2.25" WIDE), DUAL SCSI PORTS, POWER & SYSTEM CABLES, ULTRA-QUIET COOLING FAN, PUSH-BUTTON SCSI ID SELECTION, UNIVERSAL 90-240V 40 WATT POWER SUPPLY, HIGH QUALITY SHOCK RESISTANT CASE, A 30 DAY, MONEY-BACK GUARANTEE, AND FORMATTING SOFTWARE.

Quantum

TRAILBLAZER 3 YR WARRANTY, 12 MS 128K BUFFER, 4500 RPM

	INTERNAL	EXTERNAL
365MB SPECIAL! BEST BUY!	129	179
850MB SPECIAL! BEST BUY!	255	299

ATLAS SERIES 5 YR WARRANTY, 8 MS, 7200 RPM, 3.5"

	INTERNAL	EXTERNAL
1.0 GIG 1 MEG CACHE 1/3 HGT.	699	749
2.1 GIG 1 MEG CACHE 1/3 HGT.	949	999
4.2 GIG 2 MEG CACHE 1/2 HGT.	1449	1499

CAPELLA SERIES 8.5 MS, 5400 RPM, 3.5" 1/3 HGT.
2.2 GIG *SPECIAL!!* $849 $899

FIREBALL SERIES 3 YR WARRANTY, 9.5 MS, 128K BUFFER, 5400 RPM

	INTERNAL	EXTERNAL
540MB	215	259
1080MB SPECIAL! BEST BUY!	349	399

GRAND PRIX SERIES 5 YR WARRANTY, 8.6 MS, 7200 RPM, 512K CACHE, 1/2 HEIGHT 3.5"

	INTERNAL	EXTERNAL
4.28 GIG *SPECIAL!!*	$1099	$1179

DAYTONA SERIES POWERBOOK DRIVES 1 YR WARRANTY, 2.5"

	INTERNAL	EXTERNAL
256MB	219	299
514MB	399	479
Apple 200MB 2.5"	169	229

COLOR DISPLAYS

Color 14" 640X480 249
Apple 15" Multiscan ... 429
Apple 17" Multiscan ... 929
Apple 20" Multiscan 1999
NEC 2V 14" Multiscan ... 339
Sony 17SF1 Multiscan ... 879
Radius Intellicolor 20E .. 1899
SAMSUNG
SyncMaster 15 GL 399
SyncMaster 17 GL 739
SyncMstr 20 GLS 1429
Trumphet 17" 832x624 NEW . 499

ACCESSORIES

Compact SCSI Case Kit 59
2.5" SCSI Case Kit 79
2-Button ADB Mouse 19
Global Village Teleport Platinum 28.8 219
CALL FOR MODEMS, SOFTWARE & OTHER ACCESSORIES

MAC MEMORY

72 PIN SIMMS ALL OWC MEMORY IS NON-COMPOSITE WITH A LIFETIME WARRANTY. FULLY COMPATIBLE WITH LCIII, QUADRAS, CENTRIS, & POWER PC.

4 MEG 70NS 149
8 MEG 60 or 70NS 289
16 MEG 70 or 60NS 469
CALL FOR POWERBOOK AND 30 PIN MEMORY.

84 MHZ OWC ROCKET ACCELERATOR

EASY PLUG-ON, NO SOLDERING OR PERMANENT MODIFICATION. 5 MINUTE INSTALLATION. RED AND GREEN LED WARNING LIGHTS SHOW CORRECT INSTALLATION. ULTRA-QUIET COOLING FAN. FREE TECH SUPPORT. 2 YEAR WARRANTY. 30 DAY MONEY BACK. SAFELY INCREASES CLOCK SPEED UP TO 40%!

84MHZ ROCKET for 6100/60/66/Performa 61xx/7100/66 $59.95

POWER MAC LEVEL 2 CACHE CARDS

256K Cache 129
512K Cache 259

Save $10 When You Buy Both Cache & Rocket Accelerator!

32 MEG PowerPC Upgrade Kit

INCLUDES TWO NEW 16 MEGABYTE, NON-COMPOSITE, 2K REFRESH, 70NS SIMMS WITH A LIFE-TIME WARRANTY.

ADD THE POWER OF 32 MEGABYTES FOR ONLY $869!

WOW!

NO SALES TAX OUTSIDE ILLINOIS

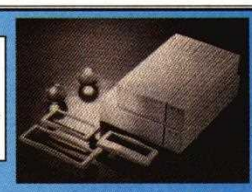
MEMORY MEGA-DEAL!!!

MPD Micro Product Distributors

1-800-993-5673

Leasing Terms Available, Please Call for Details

Please call for Custom Configurations. Prices reflect 3% discount for CASH ONLY!. All Major Credit Cards accepted. International orders Welcome. Call (305) 477-4441 or Fax Us at (305) 477-4602.



NEW!! Power Macintosh 9500

- 120-MHz or 132-MHz PowerPC 604
- Processor Upgradability to 150MHz
- 512K Level 2 cache
- Expandable to 768MB of RAM
- Six PCI slots for expansion cards
- On-board Ethernet (10Base-T and AUUI)
- Internal Quad-Speed CD-ROM

PowerMacs

PowerMac 6100/66 8/500 ..... 1,576.
PowerMac 6100/66 8/500 CD ..... 1,758.
PowerMac 6100/66 16/700 w/Soft Windows ..... 1,950.
PowerMac 7100/80 8/500 ..... 2,495.
PowerMac 7100/80 8/700 CD ..... 2,795.
PowerMac 7100/80AV 16/700 CD ..... 3,295.
PowerMac 8100/100 8/700 ..... 3,142.
PowerMac 8100/100 16/1000 CD ..... 3,874.
PowerMac 8100/100AV 16/1000 CD ..... 3,995.
PowerMac 8100/110 16/2000 CD ..... 4,930.
PowerMac 9500/120 16/1000 CD ..... 4,454.
PowerMac 9500/132 16/2000 CD ..... 5,118.

PowerBooks

150 4/120 ..... 975.
520 4/160 ..... 1,495.
520C 4/160 ..... 1,875.
540C 4/320 ..... 3,095.
540C 12/500 Mdm ..... 4,095.

Monitors

14" Color Plus ..... 283.
15" Multiple Scan ..... 445.
17" Multiple Scan ..... 935.
20" Multiple Scan ..... 1,878.

Sony

15" MultiScan ..... 441.
17" MultiScan ..... 870.
20" MultiScan 20se ..... 1,910.

Printers / Keyboards

SW 1200 ..... 244.
Color SW 2400 ..... 425.
Personal LW 320 ..... 760.
Personal LW 360 ..... 1,195.
LW Pro 16/600 ..... 1,999.
LW 4/600 PS ..... Call
Extended Keyboard ..... 136.
Design Keyboard ..... 74.

GCC Printers

Elite XL808 ..... 2,918.
Elite XL1208 ..... 4,049.
Select Press 600 ..... 2,915.
Select Press 600 Pro ..... 3,806.
Select Press 1200 ..... 4,535.

Pinnacle Micro

Tahoe 230MB - Mac ..... 713.
Sierra 1.3GB - Mac ..... 2,175.
Sierra 2.6GB - Mac ..... 4,353.
RCD1000 - Mac ..... 1,513.

Global Village

Teleport Bronze II ..... 90.
Teleport Gold II ..... 119.
Teleport Platinum ..... 229.
PowerPort Gold ..... 223.
PowerPort Mercury ..... 314.

Miscellaneous

Apple CD300E+ ..... 225.
Apple CD600E ..... 298.
FREE! CD Software
Soft Windows v1.0 ..... 149.

Quantum Hard Drives

Internal 365MB SCSI ..... 153.
Internal 730MB SCSI ..... 235.
Internal 1080MB SCSI ..... 523.
Internal 2.1GB ..... 864.
External 365MB SCSI ..... 233.
External 730MB SCSI ..... 295.
External 1080MB SCSI ..... 603.
External 2.1GB SCSI ..... 944.

External Hard Drives features a compact design, Dual-SCSI Ports, All cables, Universal Power Supply & FWB Software

SyQuest

External 88MB for Mac ..... 339.
External 200MB for Mac ..... 479.
External 270MB for Mac ..... 458.
44MB Cartridge ..... 40.
88MB Cartridge ..... 45.
105MB Cartridge ..... 50.
270MB Cartridge ..... 55.
200MB Cartridge ..... 66.

GCC Elite XL 608, 600dpi, 11"x 17", 8ppm
SPECIAL!!! $2,295.

- **30 Days Money Back Guarantee** (Certain Conditions Apply.)
- **48 Hours Turn-Around on Warranty Repairs.**
- **School & Government PO's Welcome.**

FREE FedEx Federal Express **2nd Day Delivery on CPU's**

Explore the World of Macintosh® at...

Authorized Catalog Reseller

MACWORLD-BOSTON '95
DISCOUNT TICKETS!!!
AUGUST 8—11, 1995
EXHIBIT ONLY TICKETS:
#080895 $25
CONFERENCE/EXHIBIT TICKETS:
#081195 $120

Macintosh® SuperStores
Computer Town®

Visit Computer Town at Macworld - Boston. Booths #5133 & #1636

FREE APPLE AUTHORIZED MAIL-ORDER CATALOG
1-800-613-0622

8100/80 8-500 $2195
8100/100 8-700 $2395
8100/110 16-2GB CD $4195
AV CARD $250
16-700 CD $2795
8-700 $2995

540C 12/320 Modem $3445
520 4-160 $1449
520C 12-320 Modem $2495
12-500 $3195
DUO 280C 4-320 $2795
4-160 $1695

...SPECIALS...SPECIALS...
Radius Pro 24X/Pro 24XK/24XK $495/295/245
SuperMac 20" Color Plus/21" STD 9771 $899/1299
WACOM Tablets ArtZ II 12X18/Electro $695/795
Quantum Hard Drives Bundled w/FWB
FireBall 1.08GB/Atlas 2.1GB SCSI 3.5" $399/825
Grand Prix 4.3GB/4.3GB Wide SCSI $1049/1149
Daytona 514S/Toshiba 810 2.5 " SCSI $329/549

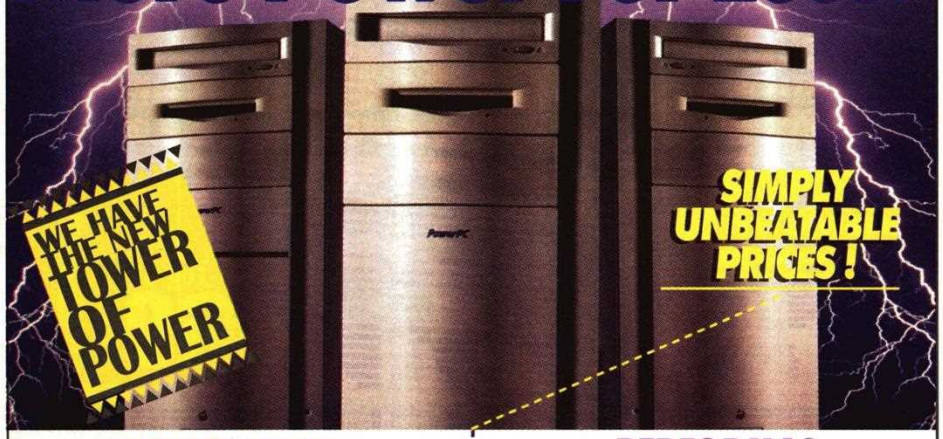
TOSHIBA
T1960CS/T1960CT M.320 $1595/1795
T3400CT/T3600CT M.500 $1695/2595
T4800CT/T4900CT M.810 $2895/3895
COMPAQ
LTE Elite 4-75CX/4-50CX M.510 $2995/2595
Desk Pro Xe 5-60 /4-66 M.8-525 $1650/1350
Proliant 2000/Proliant 1500/ Prosignias CALL

HEWLETT PACKARD Printers & Scanners
DeskWriter 660/540 $495/259
LaserJet 5MP/4MP $1029/895
LaserJet 4M $1125
8ppm, 600dpi, 6MB RAM
UMAX UC630 LE Scanner
1200 x 600 dpi, 24 bit Color
Photoshop LE
110 & 220Volt
$395

Best Price Guaranteed!
COMPU.D International, Inc.
800-929-9333
Dealer line (818)787-1054 Prices reflect C.O.D. orders & are subject to change! FAX (818)787-5555

APPLE Printers
LaserWriter 16/600 PS $1595
17ppm ■ 600dpi ■ Adobe PostScript Level 2
64 scalable TrueType & PostScript fonts
StyleWriter II $189
2ppm ■ 360dpi ■ QuickDraw, enhanced w/GrayShare
39 scalable TrueType fonts ■ Multipurpose tray
Call for all Apple & Radius Monitors & Cards

More Power For Less.



POWER MACS
Power Mac 9500[132] 16/2GB/CD....4,899
Power Mac 9500[120] 16/1GB/CD....4,199
Power Mac 6100[66] 8/500....1,299
Power Mac 6100[66] 8/500/CD....1,499
Power Mac 6100[66] 16/500/DOS....1,899
Power Mac 7100[80] 8/500....1,799
Power Mac 7100[80] 8/700/CD....2,099
Power Mac 7100[80] AV 8/700/CD....2,499
Power Mac 8100[100] 8/700....2,299
Power Mac 8100[100] 8/700/CD....2,499
Power Mac 8100[100] AV 8/700/CD....2,899
Power Mac 8100[110] 16/2GB/CD....4,499

POWERBOOKS
Powerbook 540C 4/320....2,999
Powerbook 520C 4/240....1,549

PERFORMAS
Performa 475 4/250....4,99
Performa 630 4/250/FPU....699
Performa 630 4/250/CD/FPU....899

PERIPHERALS
Laserwriter Color....5,999
Stylewriter II....199
Laserwriter 320....599
Laserwriter 360....999
Laserwriter 4/600....899
CD ROM 600 External....299
Apple Monitor 14"....279
Apple Monitor 15"....399
Apple Monitor 17"....929
Apple Monitor 20"....1,849
Memories,Hard Drives and Syquest also available.

MAC NET 1-800-404-9976
All products are fully warranted. Dealers inquires welcome. Prices, availability and specifications are subject to change without notice. Prices reflect a cash discount

LA's LEADING COMPUTER STORE!
LA COMPUTER CENTER
(800) 689-3933 ORDERS ONLY!
(310) 473-2535 FAX (310) 312-9041
SAME PRICE FOR CASH OR CREDIT CARDS.

POWERMAC
6100/66 8/500 $1499
6100/66 16/500/CD/DOS $2199
7100/80 8/700/CD $2199
7100/80AV 16/700/CD $2999
8100/100 8/700 $2399
8100/100 16/700/CD $2899
8100/100 16/1GIG/CD $3149
8100/100AV 16/700/CD $3099
8100/100 72/2GIG/CD $5199
8100/100AV 136/2GIG/CD $7399
8100/110 16/2GIG/CD $4699
9500/120 16/1GIG/CD $4299
9500/120 48/2GIG/CD $6099

RADIUS BLOWOUT!
Thunder II 24bit $399
Thunder IIGX 1152 $799
Thunder IIGX 1360 $1199
Thunder IIGX 1600 $1299
Thunder 4GX 1600 $2599

QUADRA & PERFORMA
Performa 630 4/250/FPU $799
Quadra 630 4/500 $1029
Quadra 650 8/230 $2099
Quadra 950 8/0 $2599
Quadra 950 16/1GIG/CD $3299

Performa 6115CD
8MB RAM, 350MB HD, CD
Apple Design Keyboard,
15" Trinitron MultiScan Monitor,
Mouse Included, Refurbished.
ONLY $1549

BLOWOUT SPECIALS!
Refurbished Performas
All units have a 90-Day Warranty.
Performa 475 4/160 $699
Performa 550 5/160/CD $799
Performa 630CD 8/250/CD $1099
LC 575 5/160/CD $899
Performa 636 4/250/Monitor $799
All Performas are complete systems.
Additional Warranties are available.
Prices subject to change without notice.

POWERBOOKS
150 4/120 $899
180 4/120 &180C 4/160 $1799/$1999
520 4/160 $1549
520 4/240 & 4/320 $1699/$1799
520C 4/160 & 12/320 $1699/2199
520C 12/320/FAX 19.2 $2599
540 4/240 $2199
540C 4/320 $2799
Duo 280 12/240/Modem $2699
Duo 280C 4/320 $2899

MONITORS
Apple 15" / 17" $429/$959
Sony 15" / 17" $489/$869
Radius Precision 17" Refurb $699
Radius Precision 21" Refurb. $1299
Supermac 21TXL 21" $2029

PRINTERS
LaserWriter 810 $2349
3 trays, Duplex, 20ppm, networkable.
LaserWriter 16/600 PS $1599
600dpi, 16ppm, PostScript, 64 Fonts.
LW 300 Refurb w/new toner $349
LaserWriter 360 / 630 $999/$1699
StyleWriter II InkJet $199
HP LaserJet 4MV 11x17! $2799
HP LaserJet 5MP PostScript $1049

PROFESSIONAL INC 800-BIG-4-MAC 244 4622 FAX-818-719-9115
MAC PROFESSIONAL INC 6430 VARIEL AVE. #105, WOODLAND HILLS, CA 91367

POWER MACS
8100/100 16/700 2795
8100/100 24/1000 3250
8100/100 40/2000 3995
8100/100AV-CD 24/1000 3495
8100/100AV-CD 72/2000 5195
8100/110 CALL
7100/80 16/700 2299
7100/80 40/1000 3100
7100/80 72/2000 3495
6100/66DOS 16/700CD 2195
6100/66DOS 24/1000CD 2695
6100/66 16/700 1995
6100/66 24/500 2145
6100/66 40/1000 2795

SPECIALS
LASER SELECT 360 995
LASER PRO 16/600 1669
QUADRA 605 8/160 895
QUADRA 630 8/500 1155
COLOR STYLEWRITER PRO 444

POWER PC 9500 NEW!
9500/120 16/1000-CD 4444
9500/120 48/2000-CD 6375
9500/132 16/2000-CD 4995
9500/132 48/2000-CD 6495
7200 / 7500 / 8500 • COMING SOON

POWER BOOKS
520 4/160 1550
520 8/320 1850
520c 8/160 1995
520c 12/320 2295
540 12/240 2495
540 20/320 2840
540 36/500 3500
540c 12/320 3095
540c 20/500 3450
540c 36/800 4195
145B 8/80REF MODEM 899
145B 8/320REF MODEM 1095
180 8/240REF 1850
180 12/320REF 1995

• WE SPECIALIZE IN CUSTOM MADE CONFIGURATIONS • since 1988 • BUSINESS LEASING AVAILABLE •

Big Mac Computers, Inc. Division of WCN

9500's
9500/120 8/0 3895
9500/120 40/2GB/cd 6395
9500/120 136/4GB 8895
9500/120 256/4GB 12895
9500/132 40/2GB/CD 7950
9500/132 256/4GB 13750
9500/132 512/0 13800

POWER BOOKS
540C 4/320 2795
540C 12/320M 3450
540C 36/500M 4625
540 4/240 2395
520C 4/160 1795
520 4/160 1595
150 8/120M 1800
150 4/120 935

POWER MAC'S

	8/0	8/700	16/1GB	40/2.0	128/2.4	256/4.0
6100/66	$1380	$1580	$2090	$2980	N/A	N/A
7100/80	1930	2130	2730	3530	7400	N/A
7100/80AV	2630	2830	3230	4230	8195	N/A
8100/100	2395	2595	2995	3995	7995	11995
8100/100AV	2695	2895	3195	4295	8295	12295
8100/110	4295	4495	4895	5695	9695	13695
8100/110AV	4595	4795	5195	5995	9995	13995

APPLE CD 3001 PLUS ADD $239. • SOFTWINDOW ADD $120.
IMB V-RAM ADD $75. • Audio Video Models CALL • 6100 DOS Card $535
ANY CUSTOM CONFIGURATION AVAILABLE

WORK GROUP SERVER
95 16/500DAT 3595
80 16/168DAT 3595
6150 8/500-CD 2650
8150/120MHZ CALL
9150/8 IN STOCK
Apple Share 4.0 595

SPECIALS
Style Writer II 195
Performa 630 1150
Apple CD 300e+ Ext 239
Visa, MC & AmEx Welcome.Subject to change w/o notice & Limited Qty. All prices are COD

DEMO MACS/PARTS
8100/110 8/0 3495
800 8/0 1495
840AV 8/0 2295
950 0/0 1995
1.44 Floppy 199

Toll Free: (800) 761-1999 10837 Santa Monica Blvd. Los Angeles, CA 90025 Tel: (310) 470-7099 Fax: (310) 470-8099

FREEDOM OF IMAGEXPRESSION

ScanPrepPro gives you the freedom to scan without being chained to your workstation for hours calibrating your scanner and correcting color balances. ScanPrepPro is an Adobe Photoshop™ plug-in that takes care of it for you! Tell it what type of scanner you have and the printing process to be used, and ScanPrep Pro configures the scanner and does a preview for you. After the scan, ScanPrepPro processes the image in Photoshop for the most accurate output. Don't touch that mouse... let ScanPrep Pro do the work! **$695** from ImageXpress.

CALL NOW FOR FREE CDG CATALOG

800-741-6227
CDG Systems, Inc.
6225-F Presidential Court
Ft. Myers, Florida 33919
Local/Int'l.: 941-489-4338
FAX: 941-489-4694

INTERNET: www.peganet.com/cdgsys/cdg.html • APPLELINK: cdg.sys • E-MAIL: cdgsys@peganet.com

We Attack High Prices !!

BLOWOUT SALE !!
6100/60 16/250 **FREE** SoftWindows $1389
6100/66 16/500 DOS Card/CD $2309
7100/66 16/250 **FREE** Softwindows $1999
7100/66 16/500 **FREE** Softwindows $2099

NEW! Power Macs

9500/120 16/1000/CD	In Stock	$4199
9500/132 16/2000/CD		$5094

Apple's Fastest Mac

120MHz or 132 MHz Power PC 604 • Six PCI slot for expansion cards
512 K Level 2 cache • Expandable to 768MB of RAM
Expandable to 768 MB of RAM • Built-in AUUI and 10Base-T Ethernet
•Apple CD™ 600i CD-ROM • Mac™ OS System Software 7.5

PCI ATI Xclaim GA Graphics Card

2MB $369 4MB $494

Power Macs

6100/66 8/500	$1511
6100/66 8/500 CD	$1724
6100/66 16/500 CD/DOS Card	$2309
7100/80 8/500	$2399
7100/80 8/700 CD	$2699
7100/80 16/700 CD AV	$2999
8100/100 8/700	$2999
8100/100 16/1G CD	$3690
8100/100 16/1GB CD AV	$3939
8100/110 16/2000/CD	$4859

We sell only Apple original serial numbers. All Power Macs Include Factory Installed Mac OS 7.5 & 256K Level 2 Cache.

Quadras

Quadra 950 8/0	$2498

Work Group Server
6150/66 16/700 w/CD
Apple Internet Server WWW
$2599
Work Group Server
9150/120 16/Two 1GB & CD DAT Drive,
Apple Internet Server WWW
$6999

Powerbooks

Duo Dock II Plus w/ Ethernet	$821
Duo 280c 4/320	$2999
Duo 280c 12/320 Modem	$3489
150 4/120	$939
150 4/250	$1099
520 4/160	$1449
520c 4/160	$1819
520c 4/240	$1959
520c 12/320 Modem	$2749
540c 4/320	$2725
540c 12/500 Modem	$3759

Monitor

Apple Color Plus 14"	$267
Apple Multiscan 15" Display	$439
Apple Multiscan Trinitron 17"	$939
Sony Multiscan 15"	$459
Sony 17" CPD-17SF1	$859
Sony Multiscan 20"	$CALL
Apple Multiscan 20 Display	$1848
RasterOps	$CALL
SuperMacs Monitors	$CALL
E Machines T 16	$889
NEC 6FGP	$1699

Software

Quicken 5.0 w/InContol 3.0	$42
MYST CD-ROM	$47
Microsoft Encarta 1995 (CD-ROM)	$86
Norton Utilities 3.1	$94
Canvas 3.5	$255
Excel 5.0	$299
MS Office 4.2 (CD-ROM or Disks)	$CALL
Aldus PageMaker (68K/PowerMac)	$CALL
Adobe Photoshop 3.0	$549
Quark XPress (68K/PowerMac)	$569/622

Modems

Supra 14.4k LC	$132
SupraFax v32bis	$179
Supra 28.8k (w/Cables & Software)	$211
Geoport Telecom Adapter	$111
GV TelePort Gold II	$109
GV TelePort Platinum	$224
GV PowerPort Gold	$229
GV PowerPort Platinum	$330
GV PowerPort Mercury 500 Series	$314
GV PowerPort Mercury For Duo	$318

CDs

Apple CD 600e External	$308
Apple CD Multimedia Kit	$CALL

(Includes Apple Design Power Speakers II, & CD 300 Plus External)

Newtons

Newton MP 120/1 MB	$572
Newton MP 120/2 MB	$671

(Includes Ext. Fax Modem)

Printers

StyleWriter 1200	$239
StyleWriter II	$219
Apple Color StyleWriter Pro	$381
Portable Color StyleWriter 2200	$372
Color StyleWriter 2400	$389
Apple LaserWriter 4/600 PS	$860
Color LaserWriter 12/600 PS	$5899
LW Selects 320,360	$CALL
16/600PS w/Toner	$2139
HP Laserjet 4SI	$3139
HP Laserjet 4SI MX	$4099

Memory

MB	72 Pin/ 60 ns	72 Pin/ 70 ns	Std. SIMMS
2	——	——	$83
4	$152	$151	$138
8	$318	$318	$302
16	$519	$515	$532
32	$CALL	$CALL	
PowerMac Cache Card		256K	$145
		512K	$303

DIMMS For PCI Macs

MB		MB	
4	$193	32	$CALL
8	$352	64	$CALL
16	$622	128	$CALL

Scanners

Apple One Scanner	$594
Apple Color One Scanner	$699
HP Scanjet 3p	$515
HP Scanjet 3c	$919
AGFA Studio Scan II	$819
AGFA Scanners	$CALL

Other Stuff

Apple Design Keyboard	$73
Apple Extended Keyboard	$135
APC Surge Protectors *(Power & Phone Line Protection)*	$22
Iomega Cartridges 44/88 MB	$39/42
Iomega Zip Drives	$199
Apple QuickTake 150	$653
Connection Kit for Macs	$CALL
Quadra 630 Multimedia Acces.	$CALL
PLI (SyQuest) 44, 88, 200, 270	$CALL

MacAttack

(800) 299-MACS (800) 299-6227
409.690.5353 (Fax) 409.690.5345 (Intl. Sales)
Contact Us Via Internet! MASales@aol.com

Apple Authorized
Apple Authorized Service Center
We sell only Apple Original Serial Numbers.
One Year Warranty on Apple Products.
All prices are COD.
International Orders and Fax Orders Welcome!
COD, Mastercard, and VISA accepted.
Hours: M-TH, 8-7; F 8-6 CST.
15% Restocking Fee On Returned Merchandise.

FedEx. Federal Express — FedEx trademarks used by permission.
DHL Worldwide Express — International orders handled by DHL.

Sale! 8100/110 ONLY $2999!

$0 Down Leasing

PowerPC 8100/110 Super Station

- PowerPC 8100/110MHZ w/CD
- 40MB RAM, 2.0GB HD
- Extended keyboard
- Sony 20" SE Trinitron monitor
- SuperMac Thunder 24 video card
- dsc 12000c, 24-bit, 1200 dpi flatbed w/transparency
- Multifunctional Drive: SyQuest 200 plus Sony 650 optical
- SuperMicro Extended Services

CPU starting at $2999

Zero Down! $8 A DAY!! $243 per month

CPU/XKey/Mouse	Monitor/Card	Cash	Lease	
9500/120 /80/4.3GB/CD	Sony 20" /4MB VRAM	$9599	$249	SALE
8100/110 /72/2.0GB/CD	Sony 17" /Thunder 24	$8049	$184	
8100/110 /16/2.0GB/CD	None/Thunder 24	$5299	$121	SALE
8100/80AV /72/540/CD	Sony 17" /Thunder 24	$7499	$171	
7100/66 /24/1.0GB	Sony 17" /Thunder 24	$4699	$107	
7100/80 /40/700/CD	Sony 20" /Thunder 24	$7295	$167	
6100/66 /24/540	14" hi-res color monitor	$2575	$58	
Q800 8/250	14" hi-res color monitor	$1999	$45	1 Left!

Scanners

Umax Vista S8 Pro $919!

- 24-bit color
- 400 x 800 dpi, interpolation to 6400 dpi
- Cold cathode lamp technology
- Only 21 seconds for a full page color scan!

UMAX

Scanner	Description	Price	
DSC 6000c	600 dpi flatbed w/PS LE	$449	SALE
DSC 8000c	800 dpi flatbed w/PS LE	$549	
DSC 12000C w/trans	1200 dpi flatbed w/PS LE	$949	
Agfa StudioScan IIsi	800 dpi flatbed	$829	SALE
ScanMaker IIHR	600 dpi flatbed	$779	
Nikon ScanTouch	1200 dpi flatbed	$999	1 Left!
Umax PowerLook	1200 dpi flatbed	$2469	
Umax Vista S8 Pro	800 dpi flatbed	$919	SALE
Nikon CoolScan	2700 dpi slide	$1369	SALE
Scanmaker 35t	1800 dpi slide	$899	SALE
Polaroid SprintScan	2700 dpi slide	$1859	
Arcus Plus adapter	transparency upgrade	$399	
StudioScan II adapter	transparency upgrade	$369	
Microtek adapter	transparency upgrade	$519	

SyQuest Cartridges

IOMega 44MB Cartridges 10 for $250! Low Prices

Cartridges		Price	
270MB Cartridges	(5 + or with drive purchase)	$56	
200MB Cartridges	(5 + or with drive purchase)	$70	
105MB Cartridges	(5 + or with drive purchase)	$48	
88MB Cartridges	(5 + or with drive purchase)	**$37 /45**	SALE
44MB Cartridges	(5 + or with drive purchase)	**$29 /39**	SALE

Optical Cartridges

Sony 1.3GB Cartridges $85!

3.5" Optical	Price	
DSC 128MB	$17	
DSC 230MB	**$25**	SALE
Komag 128MB	$24	
Komag 230MB	$28	
Sony 128MB	$29	
Sony 230MB	$39	
Verbatim 128MB	**$18**	SALE

FREE! Sony Video Tape with any 10 Sony Cartridges

5.25" Optical	Price	
Sony 600/650MB	$75	
DSC 600/650MB	$64	
Komag 600/650MB	$69	
Ricoh (1024) 650MB	**$59**	SALE
Tahiti II 1.0GB	$159	
Komag 1.0GB	$81	
dsc 1.2/1.3GB	$79	
Maxoptix 1.2 /1.3GB	$83	
Sony 1.2 /1.3GB	**$85**	SALE

Tape Cartridges	Price	
Sony DAT 90m	**$12**	SALE
Sony DAT 120m	$24	
Maxell 8mm 112m	$21	
Sony 6250	$25	
Sony 6525	$29	

Monitors

Apple 15" Color Monitor $399!

- Super Fine Pitch Trinitron Tube
- 15" diagonal screen
- 1280 x 1024 resolution
- .25mm aperture grille pitch
- Flat, anti-glare screen
- Color temperature adjustable from 5000° to 9300°K

Monitor	Resolution	Price	
Sony 1425	14in, .25mm, 1024x768	$321	
Sony 15SF	15in, .25mm, 1024x768	$439	SALE
Sony 17SF	**17in, .25mm, 1024x768**	**$859**	SALE
Sony 20SE	20in, .25mm, 1280x1024	$1889	
NEC 17XE	17in, .25mm, 1280x1024	$979	
Apple 15	**15in, .25mm, 1024x768**	**$399**	SALE
Apple 17	17in, .26mm, 1024x768	$799	
Radius 21	21in, .31mm, 1600x1200	$2069	

Video Cards

radius

Video Cards	Resolution	Price	
Radius Spectrum 24 Series V	1024x768	$399	
Radius Thunder 24 Series IV	**1024x768**	**$799**	SALE
Radius Spectrum Power, 1152	1152x870	$1138	
Radius Thunder II Series IV GX 1152	1152x870	$1819	
Radius Thunder II Series IV GX 1360	1360x1024	$2239	
Radius Thunder II Series IV GX 1600	**1600x1200**	**$2769**	SALE

COREL REWRITABLE OPTICAL DISK

Corel 1.3GB Optical Cartridges $85!

- Compatible with all magneto optical drives
- 100% defect-free
- Data integrity guaranteed for 30 years!

COREL

Corel Cartridge	Price	
600/650MB	$65	
1.2/1.3GB	**$85**	SALE

Optical Drives

FREE! $129 Value! Global Village Teleport Bronze with every optical drive purchase!

Olympus 128 $319!

OLYMPUS

Model	Capacity	Size	External	dsc Turbo	
Olympus 128	**128MB**	**3.5"**	**$319**	**$369**	6 Left!
Panasonic 128	**128MB**	**3.5"**	**$299**	**$349**	SALE
Fujitsu-230	230MB	3.5"	$569	$619	
Most-256	256MB	3.5"	$399	$449	
Ricoh 650	**650MB**	**5.25"**	**$899**	**$949**	2 Left!
Sony 650	**650MB**	**5.25"**	**$999**	**$1049**	SALE
MaxOptix-TII	1.0GB	5.25"	$1299	$1349	
MaxOptix-TIII	1.3GB	5.25"	$1989	$2039	
Ricoh 1.3GB	1.3GB	5.25"	$1599	$1649	
Sony 1.3GB	1.3GB	5.25"	$1699	$1749	

Includes external drive, 25/50 SCSI cable, Mac SW & terminator.

Tape Drives

Sony SDT-5000 $939!

- Built in data compression
- 16GB per 120 meter tape

FREE! 72 hour Replacement with any tape drive purchase!

Model	Capacity	Size	MacKit	dsc Turbo	
Sony SDT-2000	2GB	3.5"HH	$689	$739	
Sony SDT-5000	**5-16GB**	**3.5"HH**	**$889**	**$939**	SALE
Exabyte 8200	2GB	5.25"FH	$1199	$1249	
Exabyte 8500 XL	5GB	5.25"FH	$1899	$1949	

Includes external drive, 25/50 SCSI Cable, MAC SW II and terminator. Turbo version includes Retrospect.

SyQuest Drives

SyQuest 200MB $345!

- 15ms access time!
- 5.25" format
- Compatible with 44/88/200MB cartridges
- Meets imaging and publishing storage requirements

Model	Internal	External	dsc Turbo	
SyQuest 270	$360	$400	$425	
SyQuest 200	**$345**	**$385**	**$410**	SALE
SyQuest 105	$105	$145	$170	
SyQuest 88C	$250	$290	$315	
SyQuest 44	$130	$160	$185	

Includes external drive, 25/50 SCSI cable, Mac SW, terminator.

Hard Drives

Seagate Elite 3 Turbo $1299!

DSC Turbo Drives
- 72 hour replacement
- Active terminator FREE!
- FWB FREE!

Quantum	Speed	Internal	External	dsc Turbo	
GO256MB	17ms	$184	$274	$299	SALE
G0512MB	**17ms**	**$374**	**$454**	**$479**	SALE
42MB	**10ms**	**$59**	**$119**	**$144**	
270MB	10ms	$140	$200	$225	
365MB	10ms	$145	$205	$230	
540MB	10ms	$185	$245	$270	
730MB	10ms	$215	$275	$300	
1.0GB	10ms	$338	$405	$423	
1.4GB	9.5ms	$659	$719	$744	
2.1GB	9.5ms	$790	$850	$875	
4.2GB	**9.5ms**	**$1079**	**$1139**	**$1164**	SALE

Conner	Speed	Internal	External	dsc Turbo	
1.0GB	**10ms**	**$435**	**$495**	**$520**	SALE

HP	Speed	Internal	External	dsc Turbo	
2.0GB	**8.5ms**	**$1085**	**$1145**	**$1170**	SALE

Seagate	Speed	Internal	External	dsc Turbo	
1.0GB	Hawk 1, 9ms	$509	$569	$619	
2.4GB	Hawk 2, 9ms	$839	$899	$949	
2.4GB	B'cuda 2, 9ms	$1039	$1099	$1149	SALE
3.0GB	**Elite 3, 9ms**	**$1189**	**$1249**	**$1299**	SALE
9.1GB	**Elite 9, IIms**	**$2209**	**$2309**	**$2359**	3 Left!

Includes external drive, 25/50 SCSI cable, Mac SW & terminator.
For Active Termination, add $29. Additional 50/50 SCSI cables, $15 each.

Purchase $400 or more and get the full version of Microsoft Office 3.0 or Adobe Photoshop 3.0.1 for only $299

800-352-3412
Extended hours!
Weekdays: 6:00am to 8:00pm
Saturday: 8:00am to 4:00pm

SuperMicro

Image Processing Specialists
385 Van Ness Ave. #110, Torrance, CA 90501
310-782-5760 International • 310-782-5974 Fax

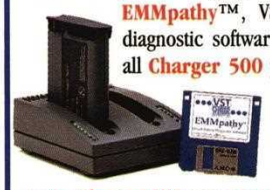
Premier

POWERBOOKS UNPLUGGED

Practical solutions to PowerBook energy problems.

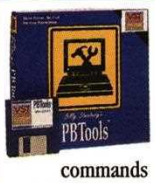
CHARGER 500

The VST Charger 500 is a smart external battery charger designed to charge, recondition and calibrate two PowerBook® 500 series Intelligent Batteries simultaneously. The Charger 500 ensures fast, safe charging and long battery life.



EMMpathy™, VST's smart battery diagnostic software, is included with all Charger 500 purchases. Get the VST Charger 500 and EMMpathy software bundled with either a VST Auto Adapter 500 or an Apple AC adapter at a special price! Very Fast! Very Smart!

PBTOOLS



The ultimate PowerBook productivity software which includes everything you need, and nothing you don't. The PBStrip™ control strip module with SmartClick™ commands brings all the convenience of Apple's new Control Strip and Modules to *every* PowerBook user. Very Cool. Some highlighted features include: PBSTRIP™, SAFESLEEP™, POWERCONTROL™, POWERWATCH™, and PBKEYS™.

THINPACK® SERIES

Innovative high-density battery technology brings dramatically increased runtimes to PowerBook® models 100-180c. ThinPack batteries plug into the PowerBook's external power port and work concurrently with the PowerBook's internal battery. It's that easy. Just plug in and power up. ThinPack Series batteries are only 1/4" thin, and are light weight, which means incredible portability. All ThinPack batteries are UL® listed for safety, and come bundled with VST's ThinPack Utilities battery management software. Choose the ThinPack Complete for runtimes up to 8 hours on black and white PowerBooks, or choose the ThinPack PLUS for runtimes up to 7 hours on color models or a remarkable 12 hours on black and white PowerBooks!

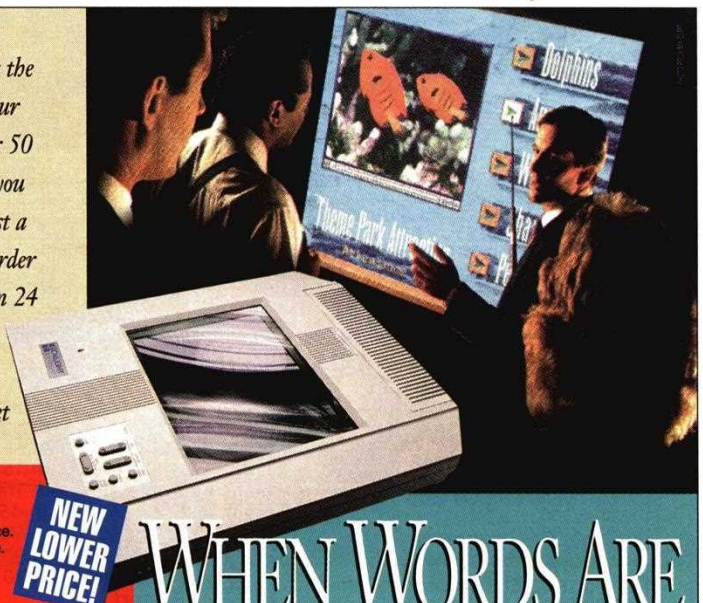
AUTO ADAPTER 500

The VST Auto Adapter 500 is a compact, 7-ounce, full function DC adapter for use in cars, vans, boats, RVs, or anywhere else there's a standard cigarette lighter socket. The Auto Adapter provides two separate currents to allow full PowerBook operation while charging the internal Intelligent Batteries. Very Compact!

VST POWER SYSTEMS INCORPORATED

VST Power Systems, Inc.
1620 Sudbury Road, Suite 3 • Concord, Massachusetts 01742
(508) 287-4600 • Fax (508) 287-4068

At Boxlight, you get the exact system for your needs. We have over 50 models in stock, so you aren't limited to just a few products. Your order is shipped in less than 24 hours, worldwide. Buying presentation equipment doesn't get any more convenient. And our 30-day money-back guarantee means there's absolutely no risk. So why wait? Pick up the phone. Call today!



Affordable Color. Classy Package
- Brightest color at any price.
- New faster response time.
- Compact, prtable design.
- Free remote & cables.
- Mac or PC Compatible

NEW LOWER PRICE!

$1999

Boxlight ColorShow™ 1200

WHEN WORDS ARE NOT ENOUGH...

Wide variety. Over 50 models in stock!
CALL FOR OUR LATEST SPECIALS!

CALL BOXLIGHT! MCWK1

Wide variety of projectors and panels in stock!

1-800-762-5757

Monday through Friday, 6am–5pm, Pacific Time.

Government: (800) 497-4004 • Resellers: (800) 736-6956
International: (360) 779-7901 • Rental: (800) 736-6954 • Fax: (360) 779-3299

Why buy from Boxlight Direct? ■ Immediate dialog with knowledgeable people the first time you call. ■ Immediate help in finding the most appropriate equipment for your unique situation — from our on-hand inventory of over 50 models. ■ Immediate service of everything we sell by our in-house service group. Industry leading Uptime Assurance Program. ■ Immediate overnight delivery to multiple world-wide locations. ■ Hassle-free 30 day money back guarantee. ■ Rentals. ■ Free lifetime after-the-sale technical support should you have any questions. ■ **Call today and ask for a FREE catalog.**

BOXLIGHT DIRECT

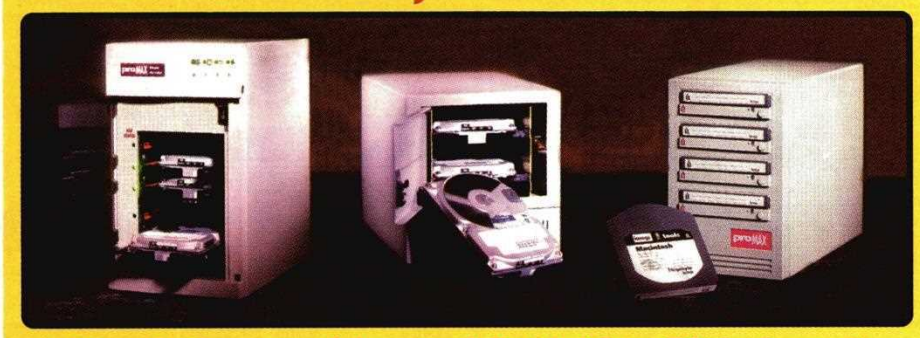
The Inc. 500 logo is a registered trademark of the Goldhirsh Group, Inc.

Inc. 500 Company

VISA MasterCard AMERICAN EXPRESS FedEx Federal Express

High Performance Storage Systems For Quadra and Power Macintosh Computers

Video Disk Arrays For VideoVision Studio, Telecast, TARGA 2000, and Media 100



Fixed, Removable, and Cartridge Disk Arrays Standard and Wide SCSI – From 4 to 54 GB

Systems on Approved List of Radius, Truevision, and Data Translation

Our Wide SCSI-2 systems include either a PCI or a NuBus high performance SCSI-2 host adapter. Systems ship with Remus striping software, video optimization utility, high impedance data cables, and active termination. We include a two year warranty and the very best technical support to be found. Sustained data transfer rates as high as 26.9 MB/s. VideoVision "FIND" rate to 6.2 MB/s, TARGA 2000 rate to 7.1 MB/s, Media 100 NTSC rate to 150 KB/s. Our video disk arrays offer constant flicker-free data transfers since they employ embedded servo technology.

Call Charles F. McConathy, René Kropf, or Dan Hatch For Data Sheets and Name of Nearest Reseller

TEL: (714) 727-3977 • SALES: 1-800-XPROMAX (977-6629) • FAX: (714) 727-3546

proMAX **ProMax Technology**

16 Technology Drive · #106 • Irvine, CA 92718

Trade names and are the property of their respective owners.

If you're tie-dye and they're black-tie—

The DOS on Mac card ties your Mac in with their PCs

Now as a Mac user in a corporation with mixed DOS and Mac environments, you don't have to feel like you're left out in the cold.

Reply's **DOS** on **Mac** card is designed with a real 486 processor to deliver performance equal to a dedicated PC. Plugging directly into the PDS slot of your Mac, the **DOS** on **Mac** card provides direct access to all your Mac peripherals. Open, run and print DOS and Windows applications, use DOS and Windows CD-ROMs, even copy and paste between Macintosh and Windows applications.

The **DOS** on **Mac** card is the fast, affordable way to run DOS and Windows on Macintosh Quadra and Centris and Power Macintosh 7100/66 systems.

Call us today and swim with the rest of the gang

1-800-801-6898

reply™

Reply Corporation
The System Enhancement Company

Reply delivers Windows and DOS capabilities to Apple Macintosh computers. In addition, Reply provides complete motherboard replacements for the IBM ValuePoint, PS/1 and PS/2 families, and Compaq Deskpro and ProLinea families. Reply Corporation Telephone: 408-942-4804 Fax: 408-956-2793

All registered trademarks are the property of their respective owners.

MegaStor

DayStar

Processors

Call For Best Prices On DayStar Processor Upgrades!

DAYSTAR DIGITAL

100 MHZ
Power Pro 601

Asante'

Networking

We're Your Best Connection For Asanté Networking Products.

ASANTÉ™
ALL THE RIGHT CONNECTIONS™

Extras!

Cases & More

Hard Drive Cases and Brackets

2.5" Pocket Data Enclosure
3.5" Single & Dual Drive
5.25" 1,2,4&7 High CD Rom/Syquest

At MegaStor, we're experts on mass storage solutions. We carry a full line of cases & brackets for almost any installation.

MegaStor Systems, Inc.

3563 Empleo St., San Luis Obispo, CA 93401

VISA AMERICAN EXPRESS Card MasterCard DISCOVER

We accept Visa, Master Card, American Express, Discover, and COD Cashier's check upon approval. Corporate, Government, and University P.O.'s accepted. Other P.O.'s accepted at MegaStor's discretion. Due to volatility in the market, all prices and availability subject to change without notice. MegaStor will not be responsible for typographical errors.

Stack

The Unlimited Configuration MegaStack

Hard Drive 1
Hard Drive 2
Syquest Drive
CD ROM
DAT Tape
Power Base

STACK IT!

- Buy 1 power base and build your own system.
- Power base and 1 additional unit starts your stack.
- Unlimited options for adding additional units.

Start your stack today! Add $49.00 to any external drive price.

Extras!

Accessories

MacALLY
3 Year Warranty

105 Key Extended ADB Keyboard	$60.99
96 Key Standard ADB Keyboard	$47.99
Single Button ADB Mouse	$20.99
Game Pad-ADB (5modes w/driver)	$30.99
Joystick-ADB (5 modes w/driver)	$45.99
Trackball ADB	$43.99

Stack It!

Hard Drives

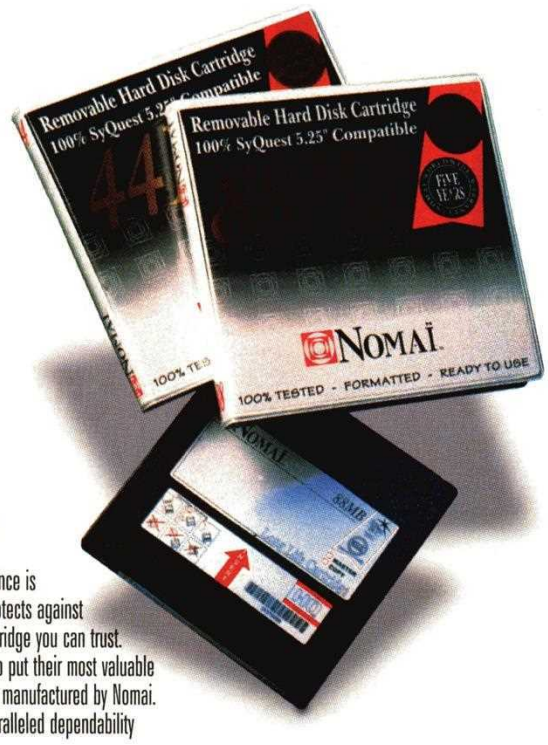
Quantum	Int.	Ext.
2.5" Quantum Portable		
256 MB Daytona	$228	$278
341 MB Daytona	$289	$339
514 MB Daytona	$385	$438
3.5" Quantum Drives		
365 MB Lightning	$159	$218
420 MB TrailBlazer	$184	$234
540 MB Lightning	$190	$240
540 MB FireBall	$194	$244
730 MB Lightning	$239	$289
850 MB TrailBlazer	$254	$304
1080 MB FireBall	$389	$439
1075 MB Atlas	$689	$739
2150 MB Atlas	$895	$945
2216 MB Capella	$789	$839
2150 Grand Prix	$875	$925
4300 MB Atlas	$1,399	$1,449
4300 MB Grand Prix	$1,089	$1,149
FUJITSU		
3.5" Fujitsu Drives		
530 MB M2684SAU	$185	$235
1.08 GB M1606SAU	$460	$480
2.1 GB M2915SAU	$895	
Fujitsu Magneto Optical Drives		
230 MB M2512	$549	$599
Magneto Optical Formatted Media		
Qty. 1-4	$32.00 ea.	
5 or more	$30.00 ea.	
SyQuest		
SyQuest Drives (2 year warranty)		
5.25" 200 MB Incl For Cart	$424	$464
3.25" 270 MB Incl For Cart	$424	$464
SyQuest Cartridges(5 year warranty)		
200 MB Pre Formatted	$73.50	
270 MB Pre Formatted	$58.00	
Nomai Cartridges(5 year warranty)		
44 MB Pre Formatted	$32.99	
88 MB Pre Formatted	$37.99	
Seagate		
Call for ALL Seagate pricing!		

Corporate, Business, & Volume Orders Call...
800 469-5100 714 723-5100

Education, Government, Home Office Call...
800 266-2242 714 498-6901

Everything SyQuest gives you, except the high price.

- 100% SyQuest Compatible
- IBM HQ* Media
- DLC for Reliability
- XXCAL Inc. Tested
- Licensed by SyQuest
- ISO 9002 Certified



The Nomai family of SyQuest compatible Removable Cartridges provide the optimum in data storage performance. Nomai cartridges are the most shock-resistant cartridge available on the market today. This tremendous shock-resistance is obtained by DLC (Diamond Like Coating). DLC protects against airborne particles which result in a long-life cartridge you can trust. That's why our customers have the confidence to put their most valuable data on 44MB and 88MB Removable Cartridges manufactured by Nomai. Backed by a 5-year warranty, Nomai offers unparalleled dependability and performance at an unbeatable price.

You be the judge!
Call today for the nearest authorized Nomai reseller.

1-800-55Nomai

Manufactured and sold under license from SyQuest
*IBM is a trademark of International Business Machines Corp.. SyQuest is a trademark of SyQuest Technology Inc..

NOMAÏ™
Always on the move

Don't leave your audience in the dark.

The MEDIASHOW® TRAVELER

Color LCD Data/Video Projector

The MEDIASHOW® TRAVELER gives new light to your computer-based presentation. Its millions of colors shine so brightly they form a brilliant image even in normal room light. This means you don't turn off your lights or your audience.

The MEDIASHOW® TRAVELER is a complete multi-media show in a briefcase. Just walk into your appointment or briefing— open the MEDIASHOW® TRAVELER's case, cable up your VGA compatible or MAC computer, and within seconds, the show begins! With its on board digital video and high quality stereo speakers, it is self contained in every aspect of your presentation.

Best of all, the MEDIASHOW® TRAVELER is backed by Sayett's full 1-year warranty and reputation as a leader in color LCD projection systems.

For more information, or a free demonstration,
call 1-800-678-SHOW (7469)
(716) 264-9250
In Europe: +31 (1804) 62833

SAYETT

Projections of things to come.

It's time to come out of the dark.

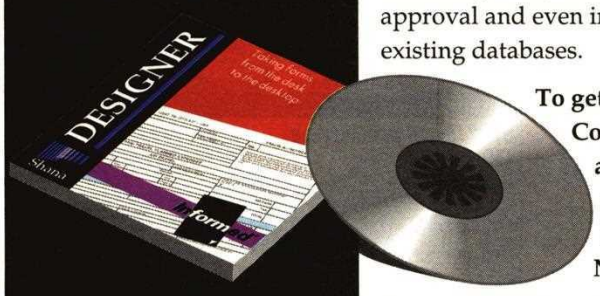
This product on GSA Schedule

- Purchase Requisitions
- Time Cards
- Expense Forms
- HR Forms

$295 Informed Designer™

FREE?!

Informed® is designed with the unique demands of business forms in mind. Create POs, Time Cards, HR and Expense forms faster than you ever imagined, fill them out quickly and accurately every time, sign them, route them for approval and even integrate them with your existing databases.



To get you started, Shana Corporation is giving away its award-winning electronic forms design package, Informed Designer, at NO CHARGE!*

Come to **MacWorld Boston Booth #5161** and get your **FREE CD**... or visit our Web site at http://www.shana.com.

The Informed Designer CD-ROM includes:
- Informed Designer
- Electronic documentation
- Interactive Introduction To Informed
- POs, Expense forms and much more...

See you at MacWorld Booth #5161

Shana

Not going to MacWorld?
Call us to get your CD for shipping & handling only.

1 800 386 7244

* shipping & handling apply ($15 in N. America)

Attention Mac Managers

What's small and gray, fits in your pocket, and holds 71 high res. 4"x5" scans?
The answer is PocketPac 500 from Microtech International.

Product Highlights
- 500MB hard drive
- 11ms access time, 1.9MB/sec sustained Data Transfer rate
- SCSI 2 interface, ships with system cable; optional PowerBook or peripheral cables available
- Very small size 3.25"W x 5"L x 1"H
- AC Adapter, DiskFORCE formatting and partitioning software, and a durable plastic carrying case

Mac managers and Apple employees around the country are using the PocketPac 500 to transport large presentations, to upgrade software for work groups, to capture large client files for service bureau output and more. PocketPac 500 is also a great solution for field service personnel who need to bring diagnostic and backup software to remote Mac sites. Try a PocketPac today at the low price of $499.00 from PrePRESS Direct at 1-800-443-6600.
Dealers call Microtech direct at 1-800-570-9539.

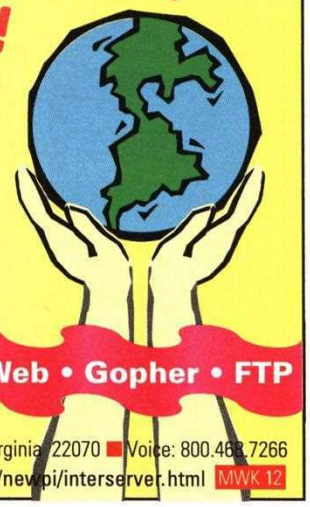
To place an order, please call and mention VIP code MT695
PrePRESS DIRECT! 1-800-443-6600 http://www.prepress.pps.com

MICROTECH INTERNATIONAL, INC. 1-800-570-9539

Mac OS

InterServer Publisher delivers your business to the Internet!

With InterCon's InterServer Publisher™ you can put your business, group, or organization on the Internet, giving a growing market of MILLIONS almost instantaneous access to what you want them to see, know, experience, and buy.



- ***Robust Web server with built-in support for forms and clickable image maps***
- ***High performance Gopher server***
- ***Secure and anonymous FTP server***
- ***Easy to configure and maintain Macintosh interface***

"Cyberpublishing has never been this easy!"

Web • Gopher • FTP

InterCon 950 Herndon Parkway ■ Herndon, Virginia 22070 ■ Voice: 800.468.7266
(email) interserver@intercon.com or (web) http://www.intercon.com/newpi/interserver.html MWK 12

Mac Networking Solutions

All-in-One Modular LAN/WAN Router!

- ✔• LocalTalk - Ethernet router
- ✔• Ethernet - Ethernet router
- ✔• High Speed WAN router (56K-T1)
- ✔• Dial Up SW56/ISDN router

The Enterprise Router for K-12...
- 2 Ethernet and up to 6 LocalTalk ports.
- WAN ports for interconnecting schools, or connecting to the Internet.
- Easy to manage through a Mac (no complex terminal commands to be typed).
- Meet current needs (and budget) now, and upgrade with more ports later.

Ideal for Graphic Arts/Prepress...
- SW56, ISDN, or T1 access for clients.
- Mac orientated point & click management, instead of type and pray!
- Desktop Dialing software for Mac users, with Applescript support.
- Drag & Drop alias for automated file transfers.
- Expandable to 6 WANs & 2 Ethernets.

ComTalk HX
Port Options- Ethernet (2 max); WAN/LocalTalk (6 max)

3 LocalTalks-Ethernet Router
- Lowest cost per LocalTalk router connection.
- Four Mice rating from MacUser (July 1994).
- Highest performance(MacUser July 1994).
- Zone and Device Security.
- Full SNMP support.
- Optional AppleTalk-TCP/IP Gateway.

ComTalk HF for $1500!

3 Port Dial in-Dial out Server
- Dial in ARA 2.0 & 1.0 (auto detection).
- Dial out to on line services or the internet.
- Dial out fax with your favorite fax software.
- Dial out network-to-network ARA.
- Zone & device security by user group.
- Thick, Thin, and 10BaseT Ethernet.

APT Dial Server for $1500!

APT Communications, Inc.: 9607 Dr. Perry Road, Ijamsville, MD 21754
Tel: (800) 842-0626; (301) 874-3305 • **Fax:** (301) 874-5255

ROI

"We never miss an issue of MacWEEK. Our ads in Marketplace have more than paid for themselves, right from the first one. We get high-end customers who buy in double digit quantities. Every issue has consistently increased our revenue stream."

—Victor Bishop, President, Digital Axis International, Inc.

PUT YOUR AD HERE AND WRITE YOUR OWN MacWEEK SUCCESS STORY.
START ADVERTISING NOW! CALL 800-825-4237 TODAY!

LATEST Mac S·A·L·E INTERNATIONAL SPECIALS

* HUGE SAVINGS ON NEW *

Performa 475 4/250
040 Processor @25MHz *(Quadra Spd)*
W/Ext. Kbd. & Apple 12" Mono. Monitor
► $699.00 ◄
• Performa 475 4/250 CPU only $579.00

• Apple Newton MessagePad •
Now truly affordable- ONLY $129.00

New MS Word/Excel Bundle - $79.00
ONLY $49.00 With Any CPU

New Apple 8•24 VideoCard - $99.00
ONLY $89.00 With Any CPU

Performa 575
4/250 W/CD
68040 33MHz
► $999.00 ◄

* NEW *

PowerBook 150 4/120	$879.00	Apple 12" MonoMonitor	$129.00	Ext. Hard Drive Case	$69.00
PwrMac 8100/80 8/500	$2699.00	Laser IIf Logic Bd (Upgrade)	$349.00	MacAlly Ext. Kybd.	$65.00
Apple Color Plus Display	$299.00	Laser NTR Logic Bd (Upgrade)	$299.00	PB Int. Fax/Data Mdm	$25.00
Apple Portrait Display	$375.00	Apple One Scanner	$399.00	Toner/Select 300,310,360	$69.00

* USED/*REFURBISHED *

(Other Configurations Available)

Desktop CPU's

Mac Plus	No Kbd or Mouse	$99.00
Mac SE (800K)	1/0	$199.00
Mac SE (FDHD)	1/0	$299.00
•Mac II	1/0	$179.00
•Mac II	4/40	$279.00
•Mac IIX	4/80	$499.00
•Mac IIFX	4/80	$599.00
•Add 8 Bit Video Card		$50.00
Mac Color Classic	4/80	$649.00
Mac Classic II	4/80	$499.00
Mac LC	2/40	$299.00
Mac LC II	4/80	$375.00
Mac LC II	4/170	$399.00
Mac LC III	4/80	$449.00
Mac LC III	4/120	$479.00
Mac IISI	5/160	$499.00
Mac Portable	2/40	$350.00
Quadra 700	4/0	$799.00
Centris 610	8/230	$799.00
Centris 660AV	8/230/CD	$999.00
Mac LC 520	4/80	$549.00
Mac LC 520	5/80/CD	$699.00
Performa 200	4/80	$499.00
Performa 400	4/80	$375.00
Performa 410	4/80	$375.00
Performa 466	4/160	$599.00
*Performa 637	8/350/CD	$999.00
*Performa 6112	8/350/CD	$1399.00

(Performa's Are CPU Only)

PowerBooks

PB 100	4/40	$499.00
PB 145	4/80	$799.00
PB 145B	4/80	$799.00
PB 160	4/80	$949.00
PB 165	4/160	$1099.00
PB 165C	4/80	$1299.00
PB 180	4/120	$1450.00
Duo 210	4/80	$699.00
Duo 230	4/80	$899.00
Duo MiniDock		$199.00
Duo Dock		$349.00
Duo Floppy Adapter		$59.00
Duo Battery Recharger		$45.00
PB Battery Recharger		$35.00
PB Int. Fax/Data Mdm		$25.00
PB 14.4 Express Mdm		$99.00
PB AC Adapters		$39.00
Apple HDI-30 System Cable or SCSI Disk Adapter		$25.00

Video

Apple 8 Bit Video Cards	$85.00
Apple Basic Color Monitor	$149.00
Apple 12" RGB Display	$179.00
Apple 13" RGB Display	$250.00
*Apple 15" MultiScan	$339.00
Apple 14" Color Display	$350.00
Apple Portrait Display	$199.00
Apple 16" RGB Display	$649.00
Apple 21" RGB Display -	$1099.00

Printers/Peripherals

**Personal Laser LS	$279.00
LaserSelect 300	$299.00
Laser Select 310	$369.00
Laser Select 360	$899.00
Stylewriter	$129.00
Stylewriter II	$159.00
Portable Stylewriter	$299.00
ImageWriter II	$199.00
I/W LocalTalk Card	$59.00
Apple Color Printer	$299.00
Laser Pro 600	$1099.00
Laser 16/600	$1699.00
Apple OneScanner	$249.00
Apple Color OneScanner	$499.00
Mac IIci Cache Cards	$15.00
Apple CD 150 Ext. Drive	$129.00
Apple CD 300 Ext. Drive	$199.00
Apple FDHD Ext. Drive	$199.00
*Apple Design Kbd	$69.00
Apple Ext. II Kbd	$115.00
Centris/Q660AV NuBus Adap.	$49.00
Geoport Telecom Adapter	$79.00
PowerBook Carrying Case	$15.00
Apple EtherNet & Network Cards	Call

* Denotes Factory Refurbished

* SPECIALS ON FACTORY REFURBISHED *

Mac LC II
4/170 W/Kbd & New
Apple 12" Mono. Monitor
► $499.00 ◄
*For Color System: Add $150

Performa 550
5/160 W/CD
68030 33MHz
► $799.00 ◄

COLOR CLASSIC 4/80
KEYBOARD & MOUSE
► $649.00 ◄

APPLE POWER CD
3-in-1 Portable CD-ROM Drive
w/Remote Control
for: Mac CD-ROM, Photo CD
& Audio Compact Discs
► $149.00 ◄

We Now Offer A Huge Inventory Of Parts For All Apple Products & Also Offer Extended Warranties
Visit Our Web Site At: www.getnet.com/macsale Or E-Mail Us At: macsale@getnet.com

Limited Quantities/Prices Subject To Change
Prices represent a Cash Discount - off Full Price.
Returns at discretion of Mgmt./15% Restocking fee.

1-800-729-7031

1150 W. Alameda Drive, Suite . #1 & 2
Tempe, AZ 85282
(602) 858-0900 / (602) 858-9537 (Parts)

WE WANT TO BUY YOUR NEW/USED MAC EQUIPMENT

Classified

XLR8TOR

Shoot for the Moon!

achieve light speed on your PowerMac with the

Warp Factor Series

PowerMac Accelerator

Warp Factor 90
6100-60, 6100-66, 7100-66, & 7100-80...up to 90MHz $49

Warp Factor 128
8100-80, 8100-100.....up to 128MHz $79

Warp Factor 150 with PowerPatch™ technology
9500-120 & 9500-132.....up to 150MHz $249

Lifetime warranty • 30 day MBG • Next day shipping
Tel: 800-206-7926 / 817-772-0286
Fax: 817-772-1256 MacWorld Boston booth #5742
42

Come See Us at the MacExpo Booth #5622 World Trade Center

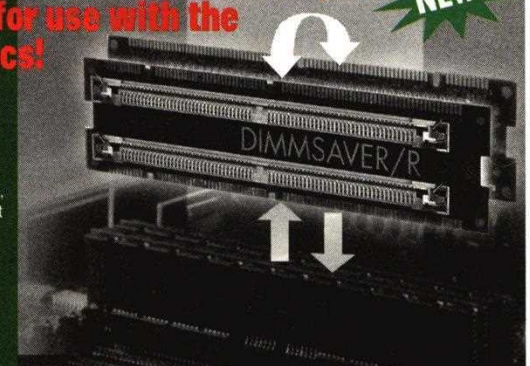
The versatile DIMMSAVER/R saves your 72-pin SIMMs for use with the new PowerMacs! NEW!

SimmSaver Technology helps you avoid another memory crisis

Dual Inline Memory Module (DIMM), a 64-bit, 168-pin module, is the new RAM used in the latest line of Power Macs.

SimmSaver gives you a cost-effective, versatile memory upgrade solution with its newest member of memory products — the *DIMMSAVER/R (Patent Pending). This is a single, reversible adapter that converts two 72-pin SIMMs into one 2M, 4M, 8M, 16M, 32M, 64M, and 128M DIMM!

Call today for a limited-time special introductory pricing!



SimmSaver Technology, Inc. Simply Inventors of Memory Solutions

1-800-636-7281
Tel. (316) 264-2244 • Fax: (316) 264-4445
FAX ON DEMAND 24 HOURS
http://WWW.elysian.net/simmsaver/
Email=simmsaver @elysian.net
1820 E. 1st • Wichita, KS 67214

Diamond Computer Resources, Inc.

Standard & New 72 Pin SIMM's
PowerBook Memory
Quadra & Centris VRAM
We Buy New & Used SIMM's

16MB 72 PIN.... CALL
4X8 30 PIN.....$119

LifetimeWarranty MC/Visa No Surcharge
Corp.,Gov.&Univ.PO's Accepted
Fax 512-219-1132

800-541-7126

13377 Pond Springs R., Ste 105
Austin, TX 78729 • 512-219-1222

WANTED: USED SIMMS

TOP $$$ PAID
GUARANTEED !
256K to 32MB
All Sizes & Types

WE BUY MACS
Mac Solutions
(800) 80-WE-BUY
FAX (310) 394-7744 VOICE (310) 394-0001
1416 WILSHIRE BLVD., SANTA MONICA CA 90403

Memory Wanted
WE BUY NEW OR USED
SIMMS

256K, 512K, 1MB, 2MB, 4MB, 8MB, 16MB, 32MB.
30 Pin, 64 Pin or 72 Pin.
POWERBOOK 2MB - 28MB

We Buy In Quantity. Call Us or Send Fax.
INNOVATIVE MICRO PRODUCTS, INC.
7645 Leesburg Pike, Suite 201
Falls Church, Virginia 22043
Tel.: 703-848-0711 Fax: 703-848-0712

30 PIN SIMMS
1X8-80/70
1X8 FX
2X8-80/70
4X8-80/70
4X8 PAL
4X8-FX
8X8-70
16X8-70

72 PIN SIMMS
1X32-70/60 4MB
2X32-70/60 8MB
4X32-70/60 16MB
8X32-70/60 32MB
Non Composite

FPU
68882-25, 68882-33
PMMU CHIPS
All Printer Memory

LOWEST PRICE ON ALL MAC MEMORY

1-800-662-SIMM (7466)
Tel. 603-898-7750
Fax. 603-898-6585
Life Time Warranty

DMS
24 Keewaydin Dr. Unit #5 Salem, NH 03079

University, Government and Corporate P.O.'s with approved credit

NOVUS VISA MasterCard

Memory Upgrade Specialists

POWER BOOK
100:
2MB, 4MB, 6MB
140,145,170
2MB,4MB,6MB
160,165,180
4MB.6MB,8MB,10MB
165C,180C
4MB,6MB,8MB,10MB

PB 150 & DUO 210 ,230, 250, 270C
4MB, 8MB,12MB, 14MB, 20MB, 28MB, 36MB

BLACKBIRD
520, 520C, 540, 540C
4MB, 8MB, 16MB,24MB 32MB

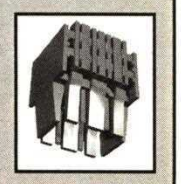
VRAM
256k VRAM, 512k VRAM
4 & 8 BIT VRAM SETS
1 MB VIDEO ZIPS

DRAM
256K DIPS, 1MB DIPS

VARIABLE SPEED CPU BOOSTER

by Trinity Works, Inc.

• Performa... (6110, 6112, 6115, 6117 & 6118)	up to	84MHz
• PowerMac 6100/60 & 66	up to	84MHz
• Power Mac 7100/66	up to	84MHz
• Power Mac 7100/80	up to	87MHz
• Power Mac 8100/80	up to	93 MHz
• Power Mac 8100/100	up to	126MHz



Universal PowerPak $119
Universal PowerPak & 256k Cache $269

PowerPak includes:
Universal PowerPak™
CPU Cooling Fan
Toll-Free tech support
Money Back Guarantee !
One Year Warranty
Rotary Switch to Vary Clock Settings without changing crytals!
Trinity Booster Patch for System Update 1.0
No soldering or Permanent alterations to the motherboard.
Other Mac Kits: Quadras/Centris 610

1931 E. Ben White Blvd Suite 900 Austin, Texas 78741
v 512-440-7052 f 512-440-7143
800.278.4944
Visa/MC/AmEx POs Welcome

POWER MACS-604!		DEC ALPHA SYSTEMS	
9500/120 16/1G/CD	$4250	166 Mhz System - $4,995	
9500/132 16/2G/CD	$4995	w/NT3.5-Dealers Welcomed!	
PERFORMA 5200	$1990	MONITORS - 1 YR WAR.	
6100 8/500	$1549	17" SONY (refurb)	$595
8/500/CD	$1699	20" SONY (refurb)	$785
7100/80 8/500	$2295	LASERWRITERS	
8/500/CD	$2472	360 Select 360S	$899
8100/100 8/700	$2963	16/600 PS	$1780
16/1000/CD	$3767	Color 12/600 PS	$5,630
FREE MAPLE SYRUP W/ORDER!		INTERNAL DRIVES	
POWERBOOKS		1 GIG Seagate 11ms.	$270!!
PBOOK 150 4/120	$898	1/2 G. Seagate 11ms.	$145
PBOOK 520 4/160	$1356	514 Quantum PBook	$349
PBOOK 520C 4/240	$1850	MAC TV	
PBOOK 540C 4/320	$2849	5/160 Demo	$995

Computer Guys
TEL 603-659-2912 FAX 659-5722
Call us in tax-free New Hampshire for advice and our fax price list.
Prices reflect cash discount & subject to change without notice. Fifteen percent restocking fee.

Powermacs		New Powermacs		Hewlett Packard		Supermac
6100/66 16/500/cd/dos	Call	9500/120 16/1gb/cd	4395	Deskwriter 560c	419	N.E.C/ Sony
6100/66 8/500	1509	9500/120 512/1gb/cd	Call	Deskwriter 660C	499	
6100/66 16/500/cd	1720	9500/120 768/2gb/cd	Call	Laserjet 5MP	1025	Micronet/PLI
7100/80 8/500	2395	9500/132 16/2gb/cd	5095	Laserjet 4M Plus	1869	
7100/80 AV 16/700/cd	3159	9500/132 512/2gb/cd	Call	Laserjet 4M+ 220V	1895	Microtek/UMax
7100/80 8/700/cd	2669	9500/132 768/2gb/cd	Call	Deskjet 1600CM	1895	
8100/100 16/700/cd	2995	ATI Video card	375	Laserjet 4MV 11x17"	2699	Agfa/ Nikon
8100/100av 16/700/cd	Call	Thunder 30/1152	775	Laserjet 4SiMX	4079	
8100/110 16/2Gb/cd	4795	Thunder 30/1600	1145	Scanjet 3C	919	Newgen/Epson
Quadra/Performa		*Apple Printers*		Scanjet 3P	345	
630 4/500	999	Personal Laser 300	599	Jet Direct Card 10BT	299	Pinnacle Micro
630 4/250/cd	1249	Stylewriter 1200	265	Duplex option 4M+	495	
Perf 631 8/500/cd	1575	Stylewriter 2400 Clr.	405	500 sheet mechanism	325	
Perf 640 12/500/dos	2195	Laserwriter 320	745	We carry all HP accessories		
Perf 5215 8/1gb/cd	2175	Laserwriter 360	1099			
Perf 6116 8/700/cd	1795	Laserwriter 16/600	Call			
Perf 6200 8/1gb/cd	2175	Laser Pro 810	2795			
Powerbooks/Duos		Port. Stylwtr 2200	395			
520 4/160	1475	Col. Laser 12/600	6095			
520C 4/240	1975	Laserwriter 4/600	895			
520C 12/320/modem	Call	*Apple Monitors*				
540C 4/320	2795	14" Color Plus	295			
540C 12/500/modem	Call	15" Multiscan	445			
Duo 280C 12/320/M	Call	17" Multiscan	945			
Duo Dock Plus	855	Sony Trinitron 14"	299			
Intelligent Battery	145	20" Multiscan	1895			
GV Mercury Modem	319					

Mac Storm International Since 1988
(310)829-9780
Fax Toll Free 1-800-Fax-9553
Local & Int'l Fax (310)315-1009
International and Dealer sales welcome.
Corp. Leasing available. Call for items not listed
SPECIAL RATES FOR FEDEX 2-DAY SHIPPING
Prices reflect 3% cash discount.
Prices may change w/o notice. Call for current best prices

BUYERS

Marketplace readers are buyers. 77% of them bought hardware from a Marketplace ad in the last twelve months.

ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT!
CALL 800-825-4237

Source: 1994 MacWEEK Marketplace Subscriber Study

DATA
MICRO COMPUTER INC.

800•345•1234
Tel (310) 398•3300
Fax (310) 391•2488

DEALERS & INTERNATIONAL SALES WELCOME!

WE CARRY FULL LINE OF SOFTWARE & HARDWARE.

Apple LaserWriter Select 300 $ 495.
Apple Personal Laser 300 $ 395.

		PowerBooks	
Personal Laser 320	775.	150 4/120	895.
LaserWtr.Select 360	945.	520 4/160	1495.
LaserWriter 16/600	1595.	520C 4/240	1795.
LaserWriter Pro-810	2395.	520C 12/320Fax	2495.
HP Laser 5MP	985.	540C 4/320	2780.
HP Laserjet 4MV	2695.	540C 12/320Fax	3450.
Fargo Primera Pro	1285.		
Fargo Pictura 310	3295.		

Power Mac		SuperMac		Performa	
6100/66 8/500	1459.	Thunder/24	375.	475 4/160	495.
610066 8/500 CD	1569	Thunder/24GT	1435.	575 5/250CD	795.
6100/66 16/500 DOS	2095.	Thuder IIGx cards	CALL	550 5/160CD	675.
6100/66 16/1GIG/CD	2260.	Thunder 4GX-1360	1145.	577 5/250CD	795.
7100/66 8/250 CD	1795.	Thunder 4GX-1600	1245.	6115 8/350CD	1465.
7100/80 8/500	1995.	Thun. Color/30-1152	1895.	14" Color	195.
7100/80 8/700 CD	2150.	Thun. Color/30-1600	1545.	15" Multiscan	249.
7100/80 32/2GIG CD	3545.	SuperMac 21" Color	1195.	20" Multiscan	159
8100/100 16/700 CD	2895.	SuperMac 20" Trinit.	1275.	•Performa's Reconditioned Units•	
8100/100 32/2Gig CD	3145.	Spectrum 24PDQ Plus	395.	**Radius**	
8100/110 16/2Gig CD	4595.	E-Machine Futura IISX	195.	Precision Color 17	845.
9500/120 16/1Gig CD	4295.	E-machine Futura IILX	295.	PressView 17T	1825.
9500/120 128/4G CD	8860.	**Scanners**	CALL	Precision Color 20E	1835.
9500/132 16/2Gig CD	5195.	Agfa Arcus	2395. US	PressView 21T	3045.
9500/132 256/4G CD	1389	ScanMaker	2295. LAST!	SuperMatch 21TXL	1975.
7100/66 8/250CD $ 1795		**LEASING AVAIABLE**		Video Vision ProPak	8295.
				Studio Vision S. Array	5045.

iCN
INTERNATIONAL COMPUTERS & NETWORKING

WE BUY & SELL NEW & USED MACS

TRADE IN YOUR OLD MAC FOR A POWERMAC

COMPLETE UPGRADE
With Original Apple Logic Board & Parts

C610, Q610, Q660 to
6100/60/66 ..... **$790-895**

VX Q650, C650 to
7100/66/80 ..... **$1250-1450**

Q800, Q840av to
8100/100/110 ..... **$1500-1800**

Powermac 8100/80 to
8100/110 ..... **$1150**

LCII, LCIII to
Quadra 605/68040 ..... **$375**

SPECIAL

8100/110 8/700 ..... $3995
w/ SUPERMAC Thunder 24 or PDS card
Super 17T Monitor, Kybrd

8100/100 8/700 ..... $3395
w/ SUPERMAC Thunder 24 or PDS card
Super 17T Monitor, Kybrd

7100/80 8/700/CD $2995
w/ SUPERMAC Thunder 24 or PDS card
Super 17T Monitor, Kybrd

LC520 5/80/cd $690
w/ 14" RGB Monitor

POWERMACS

9500/132 16/2G/cd	$4995
9500/120 16/1G/cd	$4195
8100/110 16/2G/cd	$3840
8100/100 8/700	$2495
8100/100av 16/700/cd	$2895
7100/80 8/700/cd	$2070
7100/8016/1G/cd	$2465
6100/66 8/500/cd	$1495
6100/66-dos 16/500/cd	$1995

QUADRAS

840av 8/230 d	$1995
800 8/230 d	$1895
650 8/230 d	$1850
630 4/250	$930
950 8/0	$2395

POWERBOOKS

P.B. 540c 12/320/m	$3450
P.B. 520c 4/160	$1650
P.B. 520c 12/320	$2100

PERFORMA'S

630 8/250/cd, 14" Mon,KB	$1290
6116 8/700/cd-mod, 14" Mon,KB	$1795
6200 8/1G/cd-mod,15" Mon,KB	$2195
6220 16/1G/cd-Mod, Keyboard	$2295
475 4/160	$595

Prices Subject to Change Without Notice

TRADE IN & UPGRADE

TEL: (310)445-6600 FAX: (310)445-6611 • 2045B South Barrington Ave., LA, CA 90025

Power Macs

Power Mac 9500/120 16/1GB/CD	4,199
Power Mac 6100/66 8/500	1,299
Power Mac 7100/80 8/500	1,799
Power Mac 7100/80 8/700/CD	2,099
Power Mac 8100/100 8/700	2,299
Power Mac 8100/100 8/700/CD	2,499
Power Mac 8100/100 AV 8/700	2,699
Performa 630 4/250/FPU	699
Powerbook 540C 4/320	2,999
Powerbook 520C 4/320	1,499

Apple PRINTERS		Apple MONITORS	
Stylewriter II	199	14"Plus	279
PLW 320	599	15" Multiscan	419
PLW 360	999	17" Multiscan	929
Laserwriter16/600	1,699	20" Multiscan	1,849

All products are fully warranted. Dealers inquires welcome.

1 800 404-9976
MAC NET
Tel.(305) 597-9699 Fax(305) 591-4391
Prices, availability and specifications are subject to change without notice. Prices reflect a cash discount

Mac Brokers
"Low Cost Source for NEW Apple & HP Products"

HEWLETT PACKARD **Call for daily unadvertised Specials**

INKJET PRINTERS

Apple Stylewriter II	$259
HP Deskwriter 320 W/Feeder	$349
Apple Color Stylewriter 2200 NEW!	CALL
Apple Color Stylewriter 2400	$459
HP Deskwriter 540	$285
HP Deskwriter 660c	$475
HP Deskjet 1200c/PS	$1,579

LASER PRINTERS

HP Laserjet 5MP W/Toner	$1,055
Apple Laserwriter 360	$1,099
Apple Laserwriter 4/600 PS NEW!	CALL
HP Laserjet 4M+ W/Toner	$1,865
Apple Laserwriter 12/600 PS NEW!	CALL
HP Laserjet 4Si MX W/Toner	$4,075
Apple Color Laserwriter 12/600 PS NEW!	CALL
HP Laserjet 4MV W/Toners	$2,799

SCANNERS

HP Scanjet 3cx Mac	$950

"For the best service and price do not buy before calling a helpful Macbrokers representative!"

PERFORMAS

Performa 475 4/250	$625
Performa 6115 CD 8/350	$1,799

POWERBOOKS

Powebook 150 4-120	$972

POWER MACS

6100 66 8-500/8-500 CD	$1,585/$1,755
7100 80 8-500	$2,559
7100 80 8-700 CD	$2,859
7100 80 16-700 CD AV	$3,380
8100 100 16-700 CD	CALL
8100 100 8-700	CALL
8100 100 16-1GB CD AV	CALL
8100 110 16-2GB CD	CALL
9500 120 16-1GB CD IN STOCK!	$4,450
9500 132 16-2GB CD	CALL

MONITORS

Apple Color Plus Display	$280
Apple Multiscan 15/17 Display	$445/890
Apple Multiscan 20 Display	$1,875

1-800-MAC-5535 International Sales and Dealers (305) 594-3833 FAX (305) 594-5864

MICRO OUTLET

PowerMac6100 8/500/CD	$1649
PowerMac6100 16/500/CD/DOS	2199
PowerMac7100 8/700/CD	2150
PowerMac8100 8/700CD	2595
PowerMac9500/120 16/0/CD	**3975**
PowerMac9500/120 16/1GB/CD	**4295**
PowerMac9500/132 16/2GB/CD	**5120**
PowerBook 520 4/160	1499
PowerBook 520C 4/160	1725
Powerbook 540c 4/320	2785
Apple 600E 4x CDROM	**299**
Apple/Quantum 730MB HD	219/279
Quantum 1080S 1GB HD	399/469
Seagate Barracuda 2GB	995/1079

LW Select360	$925	14"ColorPlus	$279
LW 16/600	1699	15"Multiscan	429
StyleWriter II	179	NEC XV15	449
H.P. L'Jet 5MP	1075	17" Sony	859
H.P. D'Wrtr560C	510	NEC XE17	999

Prices quoted are cash prices and are subject to change without notice. Returns subject to 15% restocking charge. 2785 Pacific Coast Highway #178 • Torrance, CA • 90505

1 800 801 4622

MAC SPOT
YOUR SPOT PRICE
POWER MACS

Power Mac 9500/120 /0	3,199
Power Mac 6100/66 8/0	1,199
Power Mac 6100/66 8/500/CD DOS	1,999
Power Mac 7100/80 8/0	1,799
Power Mac 7100/80 AV 8/500/CD	2,699
Power Mac 8100/100 8/0	2,199
Power Mac 8100/100 8/700/CD	2,499
Performa 475 4/0	499
Performa 630 4/0	599
Powerbook 540C 4/320	2,999

PRINTERS		ACCESSORIES	
Stylewriter II	199	Design Keyboard	77
Laserwriter 320	599	Apple 20" Monitor	1,849
Laserwriter 360	999	Geoport	119
Laserwriter 4/600	899	Apple CD 600 Ext.	299
Laserwriter 16/600	1,699	Apple 15" Monitor	419

1 800 680-1112

CUTTING EDGE

QUATRO 8100/120mhz $2299!

2 GIG EXT $859! MacUser

ALL DRIVES SHIP WITH POWERMERGE© BACKUP FREE!

CASE TYPE	MB	BRAND	ACCESS TIME	$
•Hard Drives In Our DIPLOMAT Case•				
Diplomat	40	Quantum	20ms	$99
Diplomat	170	Quantum	16ms	$149
Diplomat	350	Quantum	11ms	$199
Diplomat	540	Quantum	12ms	$249!
Diplomat	730	Quantum	11ms	$279
Diplomat	1080	Quantum	12ms	$449!
Diplomat	1080	Conner	9ms	$499!
Diplomat	2105	Conner	9ms	$849!
•SyQuest Externals Incl. Cartridges				
Diplomat	SQ270		3.5"	$469!
Ambassador	SQ200		5.25"	$459!
• Hard Drives In Our ZFP Case •				
Ambassador 425		Quantum	14ms	$219!
Ambassador 2100		Quantum	8MS 7200!	$959
Ambassador 4200		Quantum	8MS 7200!	$1249!
• CD-ROM's External w/RCA Jacks •				
Ambassador Sanyo 4x speed CD pack!				$329!
• PowerBook 2.5" Drives Internal •				
Quantum 80MB	great value		18ms	$95!
Toshiba 350mb new model			16ms	$229!

619-441-6992
2616 WILLOW BEND PL EL CAJON, CA 92019

QUATRO 850
ALTERNATIVE MAC© CASES

"... an inexpensive and expandable Mac compatible." Charles Piller, Macworld April '95

•5 Drive Bays> room for CDROM, Syquest, floppy *and* all your hard drives.
•3 NUBUS Slots> room to grow.
•200-250 Watts of Power
•Full one-year warranty
•100% Macintosh Compatible
•Fits genuine Apple Macintosh Centris/Quadra 650, and PPC 8100 motherboards and more.
•Faster speed, greater storage, and more expandability than Apple Mac systems.
•CALL FOR DEALER NEAR YOU.

QUATRO 8100/120!
20% FASTER!
$2299!
upgraded Apple PPC8100 board @120Mhz, 8MB RAM, dual SCSI, Ethernet And QUATRO 8100 Case

QUATRO 850/33Mhz 4MB/ 350HD
NEW PRICE
QUATRO 850 case and AppleCentris 650 board @33Mhz
$999!

dealers welcome! CALL FOR PRICES

ALL KITS COME WITH OUR QUATRO 850 OR 8100 CASE, APPLE SUPER FLOPPY, 200 OR 250WATTS POWER, AN APPLE MOTHERBOARD AND EXTENDED KEYBOARD AND MOUSE.

PRICES SUBJECT TO CHANGE. CALL FOR CURRENT PRICES *QTS 850 CASE ONLY

1-800-257-1666
Internet at "CUT_EDGE@eWorld.com"

INTERNATIONAL SALES (619) 441-6992 FAX (619) 441-6999
WE MANUFACTURE & DESIGN OUR CASES IN U.S.

The HARD DRIVE WAREHOUSE

730MB	Quantum 730S	$249
1.0GB	Conner 1060S	$425
1.0GB	Quantum 31080FBS	$389
1.0GB	Quantum 1080S	$379
1.7GB	Micropolis 2217	$599
1.7GB	Micropolis 2217AV	$699
2.0GB	Conner 2107S	$699
2.0GB	HP 3325A	$729
2.0GB	Quantum XP32150	$769
2.0GB	Quantum 2100S	$729
2.0GB	Seagate 12550N	$899
2.0GB	Seagate 32430N	$809
2.0GB	Seagate 32550N	$959
3.0GB	Micropolis 1936	$769
3.0GB	Micropolis 1936AV	$799
4.0GB	Conner 4207S	$1049
4.0GB	Micropolis 3243	$1099
4.0GB	Quantum GP34301	$1049
4.0GB	Seagate 15230N	$1099
4.0GB	Seagate 15150N	$1349
9.0GB	Micropolis 1991	$1959

5-year original factory warranty
30 day money back guarentee
Please add $59 for external drives

Quantum 540MB 9ms $169

Call:(818)727-9054 • Fax:(818)727-9064
20130 Plummer St., Chatsworth, CA 91311

BASON 800-238-4453

SELL

These ads work! 82% of those who read Marketplace ads buy off the page.

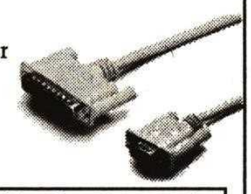
ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT!
CALL 800-825-4237

Source: 1994 MacWEEK Marketplace Subscriber Study

Cables, Adapters, Terminators, Connectors, Switches, Etc, Etc, Etc.

Mac Serial Cables 6' 10' 15' 25' 50' 100'
High Speed Modem Cables
Mac Extender Cables mini 8 M/F
Mac Switch Box Cables mini 8 M/M
ADB Replacement Cables mini 4 M/M
ADB Extender Cables mini 4 M/F
ADB "Y" Splitters
Power Cords and Extenders
SCSI Cables twisted pair & double shield
PowerBook Cables and Adapters
SCSI II Cables and Adapters
Mac Networking products
Terminators
SCSI "T" Adapters
Ethernet Transcievers and Cables
Video Cables and Adapters
IIe, IIc, and old Mac Cables
Switch Boxes & Switch Cables

- Many longer & hard to find cables
- Same day shipping
- OEM, Dealer, Dist, Education, Mail Order
- Very high quality
- First class retail packaging
- VISA and MasterCard
- Custom cable service
- IBM Stuff Also



MACWORLD EXPOSITION
VISIT US AT MACWORLD EXPOSITION BAYSIDE EXPO CENTER, BOSTON AUGUST 8-11, 1995 Booth #1316

Specials, While They Last Only!
Mac Extended Keyboard $49.95
Mac 96 Keyboard $49.95
Duo Type 2 Battery $49.95
Duo Type 3 Battery $69.95
Mac 22 KeyPad $39.95

Call for complete price list!
1-800-473-7777
Datatek USA - Taiwan - China
114 South Pattie • Wichita, KS • 67211 • Fax (316) 264-2600

MEDIAMENU™

$68.95

200MB GENUINE Syquest Cartridge.

800-818-CHOW

Iomega, 3M, Sony, Exabyte, Maxoptix, QMS, Maxell, PLI, Philips, Hewlett Packard, Micronet, Pinnacle, Quantum, FWB, Colorado, *CALL US FOR THE LOWEST PRICES.*

PINNACLE TAHOE 230 OPTICAL–$799
SYQUEST EZ135-TAKING ORDERS
PHILIPS 230MB MO MAC FORM. $28.95

COMPUTER CHOW CORP.
513 W. Mt. Pleasant Ave. Livingston, NJ 07039
201- 533-9300 fax 201-533-0540
VISA,MC, AMEX

classified

Classified

Quantum

HARD DRIVES

42MB	LPS	$59
170MB	ELS	$99
365MB	Lightning	$129
540MB		$199
730MB	Lightning	$229
850MB	Trailblazer	$289
1080MB	Fireball	$349
2100MB	Capella	$779
4280MB	GrandPrix	$1099

*Please add $59 for External Hard Drive

2.5" HARD DRIVES*

256MB	Daytona	$229
342MB	Toshiba	$169
514MB	Daytona	$399

MEMORY

1MB	1X8 80ns	$33
2MB	2X8 80ns	$74
4MB	4X8 70ns	$128
4MB	1X32 70ns	$145
8MB	2X32 70ns	$275
16MB	4X32 60ns	$439
256K	VRAM	$17
512K	VRAM	$35

POWERMAC CACHE

256K	2nd level	$119
512K	2nd level	$279

DIMM MEMORY

8MB	$305
16MB	$604
32MB	$1059
64MB	$2130

ENCLOSURES

Portable	$58
Zero Footprint	$58
4-Bay Case	$129
7-Bay Case	$229
Pocket Case	$29

OTHER MAC STUFF

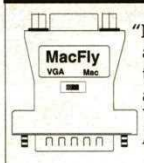
Extended Keyboard	$39
ADB Mouse	$19
Bulk Disks 50-Pack	$24
Phonet Connector	$7
Powerbook Adaptor	$19

*ALL HARD DRIVES & ENCLOSURES ARE BRAND NEW WITH 2 TO 5 YEAR MANUFACTURER'S WARRANTY. ALL HARD DRIVES COME WITH FORMATTING SOFTWARE. 30-DAY MONEY BACK GUARANTEE. UNLIMITED TOLL FREE TECHNICAL SUPPORT.
PRICES ARE SUBJECT TO CHANGE

INTERNATIONAL ORDERS (360) 366-3999, GOVERNMENT & CORPORATE PURCHASE ORDERS ACCEPTED, NO CHARGE FOR VISA & MASTERCARD.

T.D. CURRAN
800-645-2533
Fax (360) 366-3900
T.D. Curran Inc.
P.O. Box 130
Custer WA 98240

VGA to the Macs!



"MacFly is a $25 universal adapter that allows users to switch on the fly among all supported Mac and VGA resolutions." *MacWeek, 4/10/95*

Check out our complete line of video adapters and switch kits.

Free tech support!
Free shipping!
Money-back guarantee!

MacAdapt MC Visa AmEx
(510) 525-0789 fax (510) 525-5740
http://www.macadapt.com jzjames@macadapt.com

MEDIA & DRIVES

CD RECORDABLE BLANKS
TDK or MTC $7.99
74 Min/660MB 6X Certified

OPTICAL CARTRIDGES
128MB... $14.99
Komag 600/650MB...$45
TDK 600/650MB.....$60
SONY 600/650MB.....$68
230MB... $19.99
1.2/1.3GB Optical ...$57
TDK 1.2/1.3GB.....$75
SONY 1.2/1.3GB.....$80
Verbatim and 3M also available.

SYQUEST CARTRIDGES
44MB...$33 88MB...$37 105MB...$50 200MB...$70 270MB...$56

DAT TAPE MEDIA
LOW 4MM/60...$5.99 4MM/90...$6.49 4MM/120...$16.99

ZIP DISCS 100 MB...$14.99

CD RECORDABLE
FWB HAMMER 2X CD-R w/TOAST CD-Pro & CD-ROM Toolkit $1695
PINNACLE MICRO RCD 1000 2X CD-R w/ Pinnacle Premastering Software $1545
YAMAHA 4X CD-R $2545

HARD DRIVES
1 GB Hawk.....$509
2 GB Hawk.....$825
2 GB Barracuda ...$975
4 GB Barracuda ...$1175
Quantum IBM Micropolis WD Seagate Maxtor Conner Fujitsu
Low Low Low Call

ZIP DRIVES
iomega ZIP $199
• Only 14.99 for each 100MB
HIGHER UNDISCLOSED DISCOUNTS GUARANTEED
JAZ COMING SOON

MEDIASTORE
Serving America's Data Storage Needs...For Less
800-555-5551
ph. 714-997-5551 • fx. 714-997-5553

The Complete Answer To Reusing a 2.5" Hard Drive

- ✓ Upgraded your PowerBook hard drive?
- ✓ Have an extra internal drive without a housing?
- ✓ Do you find internal drives a lot less expensive?
- ✓ You need our *2.5" Data Storage Kit.*

Kit includes: T.I.SCSI Adapter, AC wall plug power supply, ADB power connector, zipper carrying case, housing

1(800) 222-6032
Dealer Inquiries Welcomed
International Datawares, Inc.
2278 Trade Zone Blvd ❖ San Jose ❖ CA ❖ 95131

QUANTUM HARD DRIVES

730MB FOR ONLY $199

540S.....169
1GB.....389
2GB.....749
4GB.....1,049
ADD $60 FOR EXTERNAL HD.

All products are fully warranted. Dealers inquires welcome.

1 800 404-9976
MACNET
Tel:(305) 597-9699 Fax:(305) 591-4391
Prices, availability and specifications are subject to change without notice. Prices reflect a cash discount

$60.00 Power Mac Clip on Accelerator

- Accelerates 040 and PowerMacs models to a new level of performance.
- Accelerates your Mac from 20%-43%

• 6100/60	84 Mhz	43%
• 6100/66	84 Mhz	27%
• 7100/66	90 Mhz	36%
• 7100/80	90 Mhz	13%
• 8100/100	126 Mhz	16%

- We also have Centris 610, 650, Quadra 610, 650, 800, 840 AV, 660AV.

Mac Sync Video Adapter $40.00

Griffin Technology MC/VISA
PH: 615/399-0990 1451 Elm Hill Pike
FX: 615/399-7060 Nashville, Tn 37210

COMPUTERS & PERIPHERALS

PowerPC

6100/66 8/500 ..... $1599
PB 150 4/120.....$950
• 6100/66 8/500/CD • 8100/100 8/700
• 7100/80 8/700-CD • 8100/100 16/2-Gig-CD
Pinnacle Sierra 1.3 gig $2,229
RCD-1000 Recordable CD $1,595
Lease a Power Mac for as low as $149.00

Memory

4 Mb.	$150	16 Mb.	Call
8 Mb.	309	32 Mb.	Call

We will beat any reasonable prices!

Prices are subject to change without notice

Macintosh Accessory Center
(800) 931-9711 • Fax (813) 931-9811

UNBELIEVABLE LOW PRICES

HARD DRIVES(1 YR WRNTY)

CAPACITY	INTERNAL	EXTERNAL
20MB	$40	$80
40MB	$58	$98
80MB	$85	$135
170MB	$125	$165
330MB	$159	$199
540MB	$205	$245
1080MB	$450	$500

FLOPPY DRIVES (90 DAYS WRNTY)
800K--$80 1.44MB--$150

MEMORY
30 PIN 72 PIN
1MB 1X8-80NS $34 4MB 1X32 $134
2MB 2X8-80NS $74 8MB 2X32 $275
4MB 4X8-80NS $129 OTHERS CALL

WE DO DATA RECOVERY

KAHLON, INC. 1-800-938-5060
22699 OLD CANAL RD PH: 714-637-5060
YORBA LINDA CA 92687 FAX:714-637-5587
CORP., SCHOOL & GOVT. P.O. WELCOME
OVER 6 YEARS IN BUSINESS

CONFIDENT

ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT! CALL 800-825-4237

Marketplace Shoppers have the confidence, and computer savvy to purchase direct from your ad. Eight out of ten bought from Marketplace ads in the last 12 months.

77% Bought Hardware
63% Bought Software
56% Bought Supplies Or Services

Source: 1994 MacWEEK Marketplace Subscriber Study

RESULTS

PUT YOUR AD HERE AND WRITE YOUR OWN MacWEEK SUCCESS STORY. START ADVERTISING NOW!
CALL 800-825-4237 TODAY!

„Advertising in MacWEEK Marketplace took us from a one-man company to a million-dollar business. It's the quality of the audience. The demand from these high-end, savvy buyers built this business. Choosing MacWEEK was a smart decision."

—Jay Goldstein, President,
800-WE-FIX-MACS

maxedsystems
Computer Sales

New / Used / Trades

PPC 9500 132 16/2GIG/CD	$ 5275
PPC 9500 120 16/1GIG/CD	4290
PPC 8100 110 16/1GIG/CD	3895
PPC 8100 100 16/700/CD	3150
PPC 7100 80 8/700/CD	2150
PPC 7100 80 16/700	2195
PPC 6100 66 16/500/DOS	1995
SOFTWARE FIRE SALE	
PHOTOSHOP	295
ILLUSTRATOR	275
MICROSOFT OFFICE	285
PAGEMAKER	295
KILLER UPGRADES	
CENTRIS/QUADRA 650 TO PCC 7100 80	1250
PPC 7100 66 TO PPC 7100 80	995
QUADRA 840 TO PPC 8100 110	1550

GREAT DEALS ON PRINTER & APPLE PARTS
APPLE WARRANTY ON NEW EQUIPMENT
HOT PRICES, COOL ATTITUDES

Call about our KILLER UPGRADES

4250 Executive Square #410. La Jolla, CA 92037
619.623.1575 • Fax 619.623.1580

GE Capital
Computer Remarketing Services

Our Business Is Helping Yours®

The Value Leader in Pre-Owned Macs
Ask about our Broker Services Programs!

VALUE PACKAGES

Apple MAC IIci 4/80 w/Color Mon.	795
Apple MAC IIsi 5/80 w/Color Mon.	695

DESKTOP

Apple Classic 2/40	395
Apple Centris 610 4/80	849
Apple Centris 610 8/230	995
Apple Centris 610 8/230 CD	1195
Apple MAC LC 4/80	495
Apple MAC LC 520 4/80 CD	995
Apple MAC IIvx 4/80	795
Apple MAC IIvx 4/230	895

LAPTOPS/NOTEBOOKS

Apple Powerbook Duo 230 4/80	895
Apple Powerbook Duo 230 4/120	945
Apple Powerbook Duo 250 4/200	2095
Apple Powerbook Duo 270C 12/240	2395
Apple Powerbook 180C 4/80	2095

PRINTERS

Apple Laserwriter IIntx 5MB	649
Apple Laserwriter IIntx 9MB	695
Apple M9200 Color Printer	749
Apple Select 300	449

AMERICAN EXPRESS · MasterCard · VISA

- *30-day warranty included*
- *All sales subject to availability*

1-800-431-7716

HAWKE
BUSINESS SYSTEMS
Flemington, NJ 08822
Fax - (908) 782-7027

(800) 875-2610

Mac IICi 5/80 /w cache	$599.00
Mac IISI 5/80	$449.00
6 Month Parts and Labor Warranty.	
Mac Se 2.5/20 800k Floppy -	$249.00
Mac Classic 4/40 -	$399.00
Mac Color Classic 4/80 -	$749.00
Keyboard & Mouse Included Above	
Apple Portrait Monitor -	$175.00
Personal LaserWriter NT -	$525.00
Laserwriter Pro 630 8 Megs	$1499.00
Service Parts for Mature Macs	
Apple 800k Floppy - $49.00	
Apple 1.4 Meg Floppy - $149.00	
128 or 512k to Plus Ugrade -$129.00	
With Front And Rear Plus Case	
Four - 1Meg Simms 80 ns -	$110.00

600 & 650 MB Optical Media

Komag & Memory Merchants team up to offer our best price ever on 600 & 650MB 5 1/4" Magneto Optical cartridges. Made in the U.S.A., they include a Lifetime Warranty!

Please hurry: This is absolutely a limited time, limited inventory offer, so call now!

Best Price Ever - Limited Time!

$35.

Your choice: 600MB or 650MB MO 5 1/4" rewritable carts: $35.00 each!

Memory Merchants offers a 30 Day Money Back Guarantee on all media products!

(800)799-DISK (3475)
Your Source for Media *since 1989*

Memory Merchants
4 Shratton Ave. San Carlos, CA 94070

BUY • SELL • TRADE

CASH FOR YOUR MAC

New & Used Mac Sales and Service...

new sales	used sales
7100/80 8/500- 2195	Centris 650 8/230- 1150
PB 540C 4/340- 2995	PERF. 550 5/160CD- 795
Laser Select 360- 1150	PERF. 575 5/250 CD- 895
Softwindows PPC- 125	Mac SE 1/40 KBD- 175
PERF. 578 8/350- 1275	14" Magnavox- 195
Sharp Laser Fax- 475	Mac LC 4/40 Mono KBD- 349

MAC RENTALS • La Jolla California
800-756-6227 • fax 619-454-1360

MAC BUNDLE BLOWOUT

Powermac 7100/80
8/500, CD,new in box
→ *ONLY $2299* ←

Powermac 9500 (16/1 gig/CD, mouse, new in box)	**$4350**
Performa 630 (8/250, mouse)	**$899**
Mac IICI & IIFX (4/80, mouse, keybd,)	**$599/799**
Centris 650 (4/80, mouse)	**$999**
PB 14.4 fax/modem (internal fax/modem for 100 to 180C)	**$79**
Double Color LC Video (drives 16" monitors on LCs, brand new)	**$59**

All prices reflect 3% cash discount
Top $$$ Paid for Used Macs. Call Today

DIGITAL PUBLISHING
1-800-780-3984
(813) 547-1361 • FAX (813) 547-1461

REFURBISHED/USED MACS & PERIPHERALS

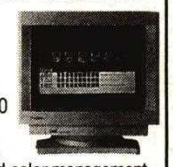
Mac Plus w/kb & mouse	$99
Mac LC II 4/80	$379
Mac IIci 0/0	$389
SE/30 5/80	$459
Seikosha Printer (New)	$69
LaserWriter IINT	$469
LaserWriter IINTX	$519
Laser Pro 630	$1299
12" Mono Monitor	$89

Other Products Available.... Call

1-800-281-3661
VISA & MasterCard Accepted

DataTech Remarketing, Inc.
471 Myatt Dr., Madison, TN 37115
615-860-4422 • Fax 615-860-0390

$639 17" Shamrock Color Monitor



On-screen display; .28 dot pitch; MPRII and Energy Star; automatically adjusts for centering and sizing from 640 x 480 to 1280 x1024; digital controls including rotate, trapezoid, pincushion and color management.

17" Multiscan Color Monitor.....$579
9-mo. warranty; new, .26 dot pitch, great picture.

17" Multiscan Trinitron Monitor..$749
Color control; MPRII/Energy Star; .25 stripe pitch.

20" Multiscan Color Monitor...$1099
1-yr. warranty. MPR II/Energy Star compliant.

RAPIData
800 316 8816
VISA

Fax 916-391-8330 • Corp./govt. POs accepted
Sales Office: 14 Moses Ct., Sacramento, CA 95823

Credit Card
Authorization & Electronic Deposit Software

MacAuthorize®

- **Save hundreds**, if not **thousands** of dollars.
- Automatically authorizes and deposits all credit card sales -- individually or in batches.
- Integrate into your sales system using AppleEvents, AppleScript & import/export.
- Supports card readers & receipt printers
- Instant totals, disount rates, printed reports
- Database and file searching
- Supports card readers & receipt printers

Single and Multiple User Versions

POS Credit Developers since 1981

800/483-5526 • 408/274-1110
Tellan Software, Inc

UNITED COMPUTER EXCHANGE

"A Global Network for buyers and sellers of used Macintosh equipment"

ATTENTION Buyers & Sellers
Weekly Closings on High Demand items

Model	Bid	Ask	Close	Chg.	B:S
Duo 270c 4-240	1700	2000	1800	-150	5:1
Pbook 520c 4-160	1500	1600	1500	-175	8:1
Pbook 170 4-80	900	1000	950	-75	3:1
6100/60 8-250 CD	1100	1300	1200	-50	10:1
7100/66 8-250 CD	1650	1800	1750	-200	8:1
8100/80 8-250 CD	2300	2600	2400	-325	7:1

800-755-3033
Web Home Page: http://www.uce.com/uce.html

Get the latest "Used Mac Price Index" available on: 24-hour FaxInfoline (404) 955-0569; United BBS (404) 612-0117

Apple II & Macintosh
COMPUTERS • PARTS • EXCHANGE REPAIRS

Specialists in used and reconditioned systems, monitors, printers & parts. Call for a free catalog.

1-800-274-5343
Int'l: 617-275-4600 FAX: 617-275-4848

Pre-Owned Electronics INCORPORATED
205 BURLINGTON ROAD, BEDFORD, MASSACHUSETTS 01730

Optical Cartridges

KYOCERA

World's Largest 3.5" MO Producer
Lifetime Warranty

$15.99

128MB Magneto Optical Disks
230MB MO Disks . . $19.99

We Will Not Be Undersold: Please Call!

Memory Merchants
4 Shratton Avenue, San Carlos, CA 94070
800-799-DISK *Since 1989*

TRAINING ON CD

THE ULTIMATE IN MACINTOSH PERSONAL TRAINING

HEAR and **SEE** how it's done right at your computer! Quay2 CDs use screen movies and voice-overs to help you learn the latest in Macintosh applications.

Each CD-ROM includes:
Over six hours of intensive training taught by expert instructors. A complete reference to menus and dialog boxes. An extensive jargon section of words and phrases. A search funtion to help you find what you need to know right when you need it.

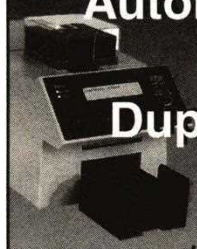
• PHOTOSHOP • ILLUSTRATOR • QUARK XPRESS • • PAGEMAKER • FREEHAND • CLARIS WORKS •

More Titles Released Each Month

ONLY $99 EACH
To order call Quay2 Multimedia
Dealer Inquiries Welcome

QUAY2 (408) 492-1051

Automatic Disk Duplicator



Standalone $1,995

Industrial quality duplicators at half the price. Copies up to 135 3.5" Mac & PC diskettes per hr.

1-800-887-9906

rates from $69 **Lease, Rent, Trade-in**

CopyPro *the low price leader*

Connect to: UNIX; DEC; HP; Tandem; IBM AS/400 & mainframe; DG; Honeywell & other hosts

Terminal emulation and Client/Server solutions
VICOM MultiTerm and VICOM Pro SDK

- 36 business emulations including: 3270; 5250; Wyse 60/50; SCO ANSI; TVI 950/925; VT420/320/220; VT340/241 ReGIS; HP2392A; DG410/211; Tandem 6530; Adds VP 50;VIP7800 + 18 more
- IND$File
- Customized & remapped keyboards, menus, buttons
- Ethernet, Tokenring; Novell SAA, SNA•ps, Andrew gateways supported. TCP/IP; Telnet, FTP Client & Server, LAT included
- Native on Power Macintosh
- Front-ending development environment with compiler, project manager, debugger, datascope for client/server apps

>>New scriptable FTP Client Pro now available<<

Vicom Technology Tel (800)818 4266 Fax (209)472 1165
AppleLink: IT0049 Internet: vicom@eworld.com

Classifi

Classified

WE STOCK PARTS, PARTS, PARTS!

LOGIC BOARD AND CPU UPGRADES

Macintosh II to IIfx with RAM exchange

Upgrade your old Mac II or IIx with a new IIfx logic board! We'll even exchange your Mac II simms for a like amount of IIfx simms. *Working boards only, please.*

$399 Mac IIx to IIfx

$449 Mac II to IIfx

$599 Mac II to IIfx with 1.44 floppy

New IIfx Trade-in Offer

Trade in your Mac IIsi, IIcx, or IIci cpu for a Mac IIfx

IIsi trade-in $399
IIcx trade-in $349
IIci trade-in $249

RAM Exchange Included

New Printer Upgrades

Personal NT to NTR
PostScript Level II, 4ppm, AMD 29205 RISC processor ***$199 exchange***

Select 300 to Select 310
PostScript Level I, AMD 29205 RISC processor ***$199 exchange***

LCIII to Quadra 605 exchange $349
MC68LC040 processor at 25 MHz, 4MB on-board RAM, 2 SIMM slots, 512k on-board VRAM

Centris 610 to Quadra 660av exchange $399
MC68040 processor at 25MHz with integrated FPU • 16-bit maximum on-board color density • 4MB on-board RAM • 2 simm slots.

Quadra 800 to 840av exchange $599
MC68040 at 40MHz with integrated FPU • 66MHz AT&T DSP chip (digital signal processing)

Quadra 840av to PowerMac 8100/110 exchange $1699

IIci to Centris 650 exchange $449
Case modification is required. 4MB on-board RAM • MC68LC040 processor at 25MHZ•

IIvx to Centris 650 exchange $449
4MB on-board RAM • MC68LC040 processor at 25MHz

LC to LCIII exchange $249

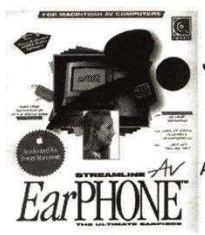
LCII to LCIII exchange $199

Classic to Classic II exchange $199

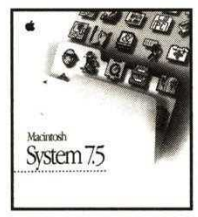
ONLY *WORKING* BOARDS ACCEPTED FOR EXCHANGES

MAC Systems & Goodies

Mac Plus Power Supply
Special
$69
reconditioned



Jabra *A/V EarPHONE*
$59 new
for Mac and PowerMac A/V systems with Geoport Telecom Adapter



System 7.5
includes disks & users manual
$39.00

MC68040 25MHz PROCESSOR UPGRADE FOR 'LC040 (NON-FPU) MACS
Only **$149** with exchange!

68030 Macs

LC 2/0	$299.
LCII 4/0	$349.
LCIII 4/0	$399.
IIci 0/0	$549.
LC520 4/80	$499.
LC550 4/160	$599.
LC550 4/250/cd	$799.
Color Classic 4/80	$749.

68040 and LC040 Macs

LC 575 8/250/CD NEW	$1099.
Performa 630 4/250 cpu	$599.
Performa 636CD 8/250	$799.
Performa 637 8/350/CD	$899.
Quadra 660av 4/0	$999.
Centris 650 4/0	$999.
Quadra 840av 0/0	$1899.
Quadra 800 8/0	$1999.

PowerMac

Performa 6100/60 8/250	$1199.
PowerMac 7100/66 8/500	$1999.
PowerMac 7100/66/AV 8/500/cd	$2699.
PowerMac 8100/110 8/0	$2699.

Performa models are cpu only
Monitors are additional

BUBBA'S BARGAIN BASEMENT

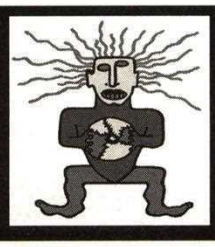
POWERBOOK NUMERIC KEYPAD	49.	CENTRIS 610 LOGIC BOARD	299.
NEWTON FAX/MODEM	49.	PERFORMA 600 LOGIC BOARD	249.
NUBUS ADAPTER FOR QUAD. 660	99.	PERSONAL NT LOGIC BD.	99.
L'WRITER P500-SHEET FEEDER	149.	PERSONAL SC LOGIC BOARD	29.
APPLETALK INTERNET ROUTER	39.	APPLE 40MB TAPE BACK-UP	69.
POWERBOOK 140-180C KEYBOARD	49.	PERSONAL LW CASSETTE BASE	39.
KINETICS ETHER SC	79.	MAC II PMMU KIT	99.
KINETICS FASTPATH	79.	2.5" 20MB PWRBOOK DRIVE	39.
NEXT ADB MOUSE	39.	LC ETHERNET BOARD	49.
IIVX LOGIC BOARD	299.	CRT & YOKE ASSEMBLY	49.
IICX LOGIC BOARD	199.	MAC PLUS KEYBOARD	49.
MAC II LOGIC BOARD	99.	MAC PLUS MOUSE	69.
MAC II CASE	39.	PORTABLE NUMERIC KEYPAD	29.
MAC PLUS/SE CASES ($25 MIN)	10.	MAC II POWER SUPPLY	99.
MAC IIX LOGIC BOARD	299.	MAC PLUS SYSTEM SAVER	29.
AE POWERBOOK AUTO ADAPTER	69.		
MAC PORTABLE 2400 BAUD MODEM	29.		
PB 140/170 BATTERY	29.		
PB 100 BATTERY RECHARGER	59.		
PB 140/170 BATTERY RECHARGER	59.		
APPLE CDSC	99.		
EXTERNAL HARD DRIVE CASE	69.		
MAC IICI CACHE CARD	19.		
DOS CARD FOR QUADRA 610	249.		
S.WRITER II INK CARTRIDGE 2 FOR	29.		
STYLEWRITER INK CART. 3 FOR	29.		
IMAGEWRITER LQ RIBBON	6.		
IISI ETHERNET BOARD	49.		
HITACHI EXT. 1X CD-ROM	99.		
LASERWRITER II TONER CARTRIDGES	49.		

New Type I batteries for your Duo 210 or 230
CHEAP!
Only $19 each or 3 for $49

AppleDesign Powered Speakers
Don't settle for El-Cheapo imitations!
specially engineered for use with computers • provide excellent stereo separation and frequency response • magnetically shielded to prevent interference with your display or disks • equipped with a dual-input mixer so you can connect them to your *AppleCD 300e* or *CD300i* and your computer simultaneously.

Like a fax machine for 25 bucks

GLOBAL VILLAGE Teleport Bronze™ Fax/Modems
2400 data/9600 fax
$25.00 new



Shreve Systems 800-227-3971

1200 MARSHALL STREET SHREVEPORT, LOUISIANA 71101
FAX 318-424-9771 • TECHNICAL SUPPORT 318-424-7987
CUSTOMER SERVICE • INFORMATION • PURCHASING 318-424-9791

All equipment is used or demo unless indicated as "new". Due to market conditions pricing and availability subject to change without notice. Prices represent a 2% cash discount. Returns subject to a 15% restocking fee.

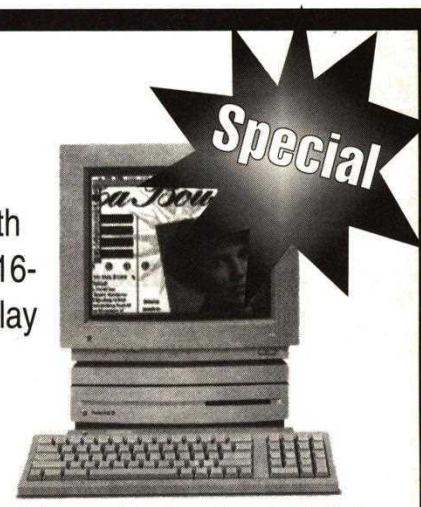
$679
New Quadra 605 4/160

PowerPC upgradable • On-board video supports large color and grayscale displays • VRAM upgradable to 1MB for 16-bit color on up to 17" displays or 8-bit on 20" • MC68LC040 processor at 25MHz upgradable to MC68040/FPU with processor upgrade • Includes software bundle with ClarisWorks®, Quicken® , and others

monitor and keyboard not included

$399
Macintosh LCIII 4/0

• MC68030 at 25MHz • optional math co-processor • max. color density is 16-bit on 14" display or 8-bit on 16" display
reconditioned



monitor and keyboard not included

Free Global Village Bronze™ Fax/Modem

MONITORS

E-MACHINES **$749**

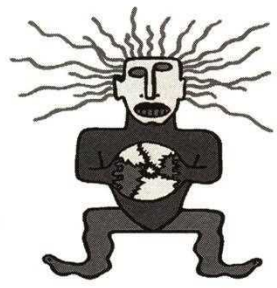
The T16 II's microprocessor-based design allows you to use it with a variety of video sources. It's Sony Trinitron® tube gives you sharp images and brilliant color. Advanced circuitry allows overscanning so you can use the full screen area.

RASTEROPS

This is the RasterOps 21" Grayscale with 1152x870 resolution. It's big Hitachi® tube provides outstanding crispness. A great value among two-page grayscale displays. Model #2110

radius

Radius Pivot displays are the only displays that allow you to view your page in both portrait and landscape orientations. By rotating 90°, the Color Pivot®/LE Display reorients your desktop, presenting your work in a whole new perspective!
Pivot interface card included.



Sun MicroSystems 14" Trinitron

This is one of the best-quality 14" Trinitrons we've seen! It has an impressive 832x624 resolution (as opposed to normal 640x480) and brilliant color display.
fully reconditioned **$349**

Hewlett-Packard 17" Trinitron

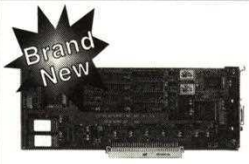
only $549
reconditioned

Hewlett-Packard 20" Trinitron

only $849
reconditioned

Apple 12" Color reconditioned	$199.
Apple 14" Trinitron reconditioned	$329.
Apple Portrait Display reconditioned	$299.
Apple 14" AudioVision reconditioned	$499.
E-Machines E20 NEW	$1149.
Hewlett-Packard 17" trinitron reconditioned	$549.
Hewlett-Packard 20" trinitron reconditioned	$899.
NEC 4-D 14" reconditioned	$399.
Radius Monochrome Pivot reconditioned	$229.
Radius Color Pivot reconditioned	$449.
Radius TPD Monochrome reconditioned	$399.
RasterOps Sweet 16	$599.
RasterOps Sweet 16 a/v	$649.
RasterOps ClearVue 15" Portrait NEW	$299.
Seiko CM-1445 14" Trinitron reconditioned	$349.

VIDEO CARDS



RASTEROPS

The *RasterOps Colorboard 208* is a high-quality color system for the Mac II family of computers. Supports 8-bit color at 640x480. Upgradable to 24-bit with RasterOps VRAM upgrade! **$129**

RasterOps® PaintBoard™ LI

- High-quality 24-bit color at an affordable price!
- State-of-the-art QuickDraw acceleration speeds color graphics. Lets you work faster and more effectively.
- Large screen support for monitors up to 21 inches for true two-page display at 1152x870 resolution.
- Fully compatible with all standard Nubus-based Macintosh

$349

The *RasterOps ClearVue/GS30* is a high-quality grayscale display system for the Macintosh SE/30. It displays 256 grays on a 640x480, 800x600, or 1024x768 monitor. Features include pan, zoom, and extended desktop! **$399**

The *RasterOps ColorBoard 264/SE30* is a True Color graphics display board for the SE/30. It supports the Apple 13" high-res. monitor or compatible at 640x480 resolution. Color depths of 1,2,4,8 and 24 bits are selectable through software. **$399**

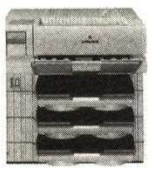
E-MACHINES

The DoubleColor™ SX from E-Machines offers a great value! With the SX you get a full set of high-performance graphics features and accelerated 8-bit color. Special features include virtual screens, hardware pan & zoom, and graphics acceleration!

only $149

Apple 8-bit reconditioned	$99.
Apple 4•8 reconditioned	$149.
Apple 8•24 reconditioned	$199.
Apple 8•24GC NEW	$249.
E-Machines DoubleColor LC reconditioned	$149.
Lapis FPD card reconditioned	$249.
Lapis TPD card reconditioned	$299.
Radius 8XJ reconditioned	$899.
Radius 24XP reconditioned	$599.
Radius Pivot Interface reconditioned	$299.
RasterOps PaintBoard Turbo XL NEW	$499.
SuperMac Thunder/24	*$499.*
RasterOps 364 NEW	$229.
RasterOps 208 8-bit reconditioned	$129.
RasterOps ClearVue/GS NEW	$399.
SuperMac PDQ-24 reconditioned	$299.

PRINTERS



Apple LaserWriter Pro 810 **$2799**

32-bit Weitek 8200 processor • 8MB RAM upgradable to 32MB • 20ppm • PostScript Level 2 w/PCL4+ emulation • 600 to 800 dpi depending on RAM installed • 8.5x11 up to 11x17• Ethernet option • NEW

Apple LaserWriter II series

RECONDITIONED

LaserWriter IIsc	*$599.*
LaserWriter IInt	*$699.*
LaserWriter IIntx	*$899.*
LaserWriter IIf	*$999.*
LaserWriter IIg	*$1249.*

Apple Personal LaserWriter LS **$299**
1MB RAM, QuickDraw, 4ppm, 300dpi, fully reconditioned

Apple Personal LaserWriter NTR **$699**
AMD 29205 RISC processor, 3MB RAM, PostScript Level 2, networkable • *fully reconditioned*

Apple Color Printer **$699**
Prints 11x17 • 360 dots-per-inch ColorSync color-matching • 64 scalable TrueType fonts • Canon BJC-820 engine • SCSI interface • networking through GrayShare software (included) • NEW

Apple ImageWriter I reconditioned	$199.
Apple ImageWriter II reconditioned	$279.
Apple StyleWriter I	$189.
Apple LaserWriter Plus reconditioned	$399.
Apple Personal LaserWriter LS reconditioned	$299.
Apple Personal LaserWriter NT reconditioned	$599.
Apple Personal LaserWriter 300	$279.
Apple LaserWriter Pro 600 4MB RAM reconditioned	$1249.
Apple Select 310 reconditioned	$489.
Hewlett-Packard DeskWriter reconditioned	$149.
Hewlett-Packard DeskWriter 520 reconditioned	$229.
Hewlett-Packard DeskWriter-C reconditioned	$249.

toner cartridges sold separately

SHREVE SYSTEMS 1-800-227-3971

Classified

IMAGERS
Digital Output & Production Center
Overnight Services

Best Value! $3.00 Slides Only
Quality Guaranteed

Kodak Photo CD

Indigo On-Demand Printing
4-Color Digital Offset Press
Slides & Overheads
Canon Digital Lasers
BIG Color Posters
Multi-Media Services

Photo CD™
Pro/$8 • 35mm Format/$.90
(800) 232-5411 or (404) 351-5800
1575 Northside Dr. Suite 490 Atlanta 30318
Satisfaction Always Guaranteed

CyberLYNX
Internet Service Provider

CyberLYNX endeavers to provide to businesses, cost-effective solutions for using the Internet to its fullest potential.

We offer full Internet access at speeds from 56 Kbps to full T1 (1.5 Mbps). We also design, create and host World Wide Web pages.

800-753-1202

http://www.cyberlynx.net
Phone Number (609) 795 - 1622
Fax Number (609) 795 - 4962
Sales sales@lynx2.cyberlynx.net
Info info@lynx2.cyberlynx.net

ISOMEDIA
2441 152nd Ave NE, Redmond, WA 98052
(206) 869-5411 • Fax (206) 869-9437

800-468-3939

CD-ROM SERVICES
Serving you Since 1991

- **Premastering and Duplication**
  Macintosh HFS, ISO 9660, Hybrid, Mixed Mode, Audio, RockRidge, MSCD or CDPLUS
- **CD-ROM Replication and Fulfillment**
  One-Offs, Short-Runs and full Replication
- **Data Conversion**
- **Quick Time and MPeg Video**
- **Scanning and Imaging Services**

Blank CDR-74 minute Media
$7.95 in volume

World Wide Web
http://www.isomedia.com

Cutters: •Sony •Yamaha •CDE100 •Pioneer
Software: •Toast •OMI •Sony •Gear •Incat

COLOR MONITORS REPAIRED

Flat rate pricing:
RADIUS • SONY • RASTER OPS
IBM • HITACHI • MITSUBISHI

OVER 1,000 MODELS LISTED.
QUANTITY DISCOUNTS AVAILABLE

Each monitor is cleaned, adjusted to factory specs, and backed by a six month warranty on parts and labor.

For Pricing Call
800-682-5175
3E Corp. Chicopee, MA

DATA RECOVERY IN HOURS.

- Over 10 years of experience with clients worldwide including Apple, NASA, & FedEx.
- We've recovered more than half-a-million megabytes of Mac data alone.
- You only pay when there's a recovery.
- Express One-Day Service is available.
- Call 24 hours a day.

LAZARUS
DATA RECOVERY
Working at the speed of business.
800-341-DATA
415-495-5556 • FAX 415-495-5553 • RESTRICTIONS MAY APPLY
381 Clementina Street • San Francisco, California 94103

Data Recovery & Assistance:
800 440-1904

DriveSavers' advanced, proprietary techniques and amazing success stories have been featured on *CNN* and *Headline News*, and appeared in *Nation's Business*, *MacUser*, and *The Los Angeles Times* (to name just a few). That's because, since 1985, businesses and individuals have trusted us to recover data others said was lost forever. Just give us a call. We can save it!

DRIVESAVERS DATA RECOVERY

400 BEL MARIN KEYS BL., NOVATO, CA 94949 PH: 415-883-4232

LOST YOUR DATA?

RELAX . . .
and let our team of specialists recover it—immediately—guaranteed.
• Call 24 Hours a Day
• DOS, MAC, OS/2, Unix, Novell
• All Rotating Media
• Great Service!

Data Recovery Toolkit™/MAC
Order NOW and SAVE 20% OFF REGULAR PRICE
Enables you to uninitialize volumes, recover trashed files, volume protection, 5 recovery routines, backup/restore with tape support. More effective than any other recovery software . . . GUARANTEED!
Prerelease Special: $199
Regular price: $249.

2462 Waynoka Rd.
Colorado Springs, CO 80915
719.380.1616 • Fax 719.380.7022
WWW: http://usa.net/totalrecal

TOTAL RECALL™
Saving Data Since 1989

VISA • MasterCard
Am. Express
Discover

800-743-0594

MAC REPAIR & UPGRADE
800-622-7977

24 HOUR SERVICE TURNAROUND
LONGER WARRANTY
FREE DIAGNOSTIC
COMPETITIVE PRICE

- We specialize in:
  -Power PC
  -Power Book
- Mother board repair
- Advance Exchanges

DT&T MACINTOSH SERVICES, INC.

Phone: 408-747-1555
Fax.: 408-747-1110
586 Weddell Dr. Suite 1
Sunnyvale, CA 94089
http://www.dttservice.com

Data Recovery

- Expertise in Macintosh & virtually every operating system & storage device - including tape & removable media.
- 24-Hour worldwide support with on-site, weekend, and priority service.
- Professional service authorized by major manufacturers.

Ontrack® DATA RECOVERY
CA: 1-800-752-7557
MN: 1-800-872-2599
DC: 1-800-650-2410
London: +44 (0)181 974 5522 • Germany: 0130 815 198
France: 05 90 72 42 • Japan: (0429) 32-6365

800-WE-FIX-MACS
Component Level Macintosh Repair

Compare and Save!
- 24 Hour Turnaround
- Guaranteed Lowest Prices
- Longest Warranties
- FREE Diagnostics
- Largest Inventory of Parts
- Advance Exchanges
- Toll Free Tech Support
- Established 1989

PowerBook, LaserWriter & Radius Specialists!
Call for Complete Price List
(800) 933-4962 (408) 988-2334
2306 Walsh Ave, Santa Clara, CA 95051

Mac Service Depot • Established 1983
SOFT SOLUTIONS
1430 Willamette #585, Eugene, OR 97401
• 1-800/264-2530 •
503/461-1136 • Fax 503/461-2005

MAC REPAIRS
ALL Models • Powerbooks • Floppies
Component (Parts) Level Service
72 Hour Turnaround @ N/C
Free Warranty Shipping
12 Month Warranties

MAC PARTS
New OEM • Repair Kits • Repair Books
Mouse Switches • Cables • CRT's, Etc..

MAC PEOPLE
Free Estimates • Friendly Referrals
No Order Minimum

Welcome: Visa • MC • Discover
• COD's • PO's • Int'l Orders •
• CALL FOR FREE CATALOG •

MOUSTRAK™ Inc.
"The Original Mouspad Company"

YOUR LOGO HERE
YOUR LOGO HERE

- Drop shipments
- Promotional discounts
- Custom printing & shapes
- 48 hour turn-around for samples
- We supply the largest users in the industry

Call Toll Free **1•800•221•6687**
Distributor Inquiries Welcome
Carson City, NV 89706 FAX # (702)884-1827

Mouse Pads

Custom Printed
• Your Logo Design
• Fast Turnaround
• Guaranteed Quality

Plastic
Cloth
Wrist Supports

MicroStore™
800-962-8885
FAX: 612-665-2604
LE SUEUR, MN 56058

CD-ROM PRODUCTION

CALL US FOR COMPREHENSIVE, QUALITY SERVICE:
- PREMASTERING • ONE-OFFS
- MASTERING AND DUPLICATION
- PACKAGING

DESKTOP CD RECORDERS

Toast CD-ROM Pro	$699
Philips 2x, Toast	$2699
Yamaha 4x, Toast	$3995

Blank discs and labels too!

Telephone: 415-961-4649
Fax: 415-964-2027
Internet: sales@catalogic.com
CATALOGIC® 2685 Marine Way • Mtn View, CA 94043
800-255-4020

CONFIDENT

Marketplace Shoppers have the confidence, and computer savvy to purchase direct from your ad. Eight out of ten bought from Marketplace ads in the last 12 months.

77% Bought Hardware
63% Bought Software
56% Bought Supplies Or Services

ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT!
CALL 800-825-4237

Source: 1994 MacWEEK Marketplace Subscriber Study

- Wanted: 4D Programmers -

Beautiful northern Virginia location. Excellent benefits. Competitive salaries. Great working environment. Looking for individuals with a Computer Science degree and 3+ years experience developing 4th Dimension database applications. Traditional programming language skills (C/C++/Pascal) a plus. Individuals must possess excellent verbal and written communication skills.

Fax your resume to FGM Inc. at (703) 478-9883. Email your resume to HRMgr@fgm.com.

FGM is an Equal Opportunity Employer.

SELL

These ads work! 82% of those who read Marketplace ads buy off the page.

ADVERTISE HERE, WHERE MAC VOLUME BUYERS BUY DIRECT!
CALL 800-825-4237

Source: 1994 MacWEEK Marketplace Subscriber Study

DESIGNER/ ILLUSTRATORS

We're in a hurry. Don't Dali.

We have immediate opportunities for full-time Product Designer/Illustrators to help create educational booklets on Macintosh computers.

To qualify you'll need commercial illustration and/or design experience—in particular, experience with line art and drawing the human figure. Familiarity with the Macintosh computer and QuarkXPress, Freehand and Photoshop software is essential, and you'll need a graphic arts degree or equivalent. You should be deadline-oriented, amenable to following established style standards, and flexible about feedback on your work.

We offer a comprehensive benefits package including family medical and dental plans, a 401(k) plan, fitness facilities and more. We could say we offer pretty good Monet, but there may be, and probably should be, a one-pun-per-ad limit. Suffice it to say the starting salary range is competitive.

These are newly-created positions; even if you have applied for previous openings, give us a try. Send a cover letter, résumé and three non-returnable work samples immediately to:

Director, Human Resources—Dept. MW
Channing L. Bete Co., Inc.
200 State Road • South Deerfield, MA 01373-0200

An Equal Opportunity, Affirmative Action Employer

MICROTECH INTERNATIONAL, INC.

Opportunity Knocks!

You're an industry-savvy, forward-thinking customer oriented marketing/engineering professional who knows how to build upon success. You want to work for a small company - a place where you can have an immediate and recognized impact - yet work in an environment that is progressive and on the move. Welcome to Microtech International!

We're a $40 million dollar design and manufacturing company (backed by a half-billion dollar parent!) specializing in storage and memory for the Apple Macintosh market. In our ongoing efforts to provide our customers with the best in high performance storage and memory, we seek only the best, well-seasoned professionals with appropriate degrees and 5-7 years experience for the following areas:

Program Manager - PCMCIA Products: You'll be responsible for managing an exciting PC Card product line through the product cycle for national and international distribution. This will include translation of customer & market requirements to engineering, product mix definition, forecasting, pricing, promotion and management of schedules and outside resources.

Applications Engineer - Advanced SCSI: Serve as the focal point within engineering for the design, engineering and release of Publishing and Digital Video storage systems ranging from PCI acceleration to RAID and future SCSI 3 technologies.

Application Engineer - PCMCIA: Working with a dedicated PCMCIA product team, you'll help the company execute its PCMCIA product plans - from desktop reader/writers to solid state storage, modems, networking and infra-red PC Cards.

Regional Sales Manager: Outside sales position with responsibilities for development and implementation of channel strategies. Must be a leader with relevant experience and a proven track record.

Regional Account Representative: Inside sales position with responsibilities for revenue generation to National System Integrators, Resellers, VARs, VADs, Prepress and Publishing markets.

For consideration, please send resume, indicating area of interest, to:
Microtech International
158 Commerce Street
East Haven, CT 06512.
Resumes may also be faxed to:
203-467-7166.

Not All Engineers Consider Multimedia A Serious Opportunity to Make Medical Breakthroughs.

But Ours Do.

"Multimedia" is most commonly a buzzword for a way to convey information or entertainment. But at the Aegis Division of Acuson, we see it as something more – a new tool to help medical professionals detect health problems, preventing further injury or even loss of life. Multimedia capabilities now allow us to combine multiple sources of information into a single high-quality presentation of moving images and audio.

By using their talents to create highly-advanced and highly usable ultrasound imaging software, the engineers at Acuson gain more than just professional rewards. They gain the satisfaction of developing technology with a greater purpose. Consider a career that offers the very best in technology – and all that it inspires.

Macintosh Application Developers

We have several openings for developers to work on our leading-edge image management system that enables hospitals to capture ultrasound images and transfer them to other hospitals worldwide for diagnosis. This complex client-server system incorporates networking, database, and imaging technologies. Requires a minimum of two solid years in Macintosh application development using C, MacsBug, and Toolbox. Some positions require C++ and experience with Booch or other object-oriented methodologies. Other relevant experience includes real-time data acquisition, image processing, software/hardware integration, SCSI management. Quicktime experience is a plus. Dept. AR/5-212C

Software Quality Assurance Engineer – Macintosh

Apply your testing skills and experience to the job of assuring that Acuson's ultrasound image management system is of the highest quality. Join a team of seasoned professionals who play the crucial role of writing detailed test plans, developing and executing automated and manual test cases, and integrating Acuson software with the latest Macintosh hardware and software. Requires a minimum of 2 years' experience as a test engineer; experience testing Macintosh applications; demonstrated ability to develop manual test cases, detailed test plans, and automation skills a must. Experience with QA Partner is preferred. Experience with client/server databases, multimedia/Quicktime technology, networking and wide-area communications is advantageous. Dept. AR5/239-C

Quality Assurance Manager

Allocate resources and provide guidance for the evolution and refinement of test processes while managing a group of software testers. Work with geographically separate development groups to define product interfaces, create test plans, and ISO 9001 compliance. Requires 5 years' experience managing software QA engineers/testers in a MAC or UNIX environment, four year degree (Masters preferred), excellent communication/presentation and technical leadership skills. Dept. AR/5-059D

Acuson offers an excellent benefits and compensation program, including stock options and profit sharing. Please send or fax your resume, indicating appropriate Dept. Code to: Acuson, 1220 Charleston Road, P.O. Box 7393, Mountain View, CA 94039-7393. FAX (415) 968-6766. E-mail: jbeckstr@acuson.com. Equal opportunity employer.

acuson CORPORATION

TECHNOLOGY WITH A GREATER PURPOSE.

RESULTS

"Of the nine publications we advertise in, MacWEEK has always been the top performer"

—Kelly Leopard, Principal, Total Recall, Inc.

PUT YOUR AD HERE AND WRITE YOUR OWN MacWEEK SUCCESS STORY. START ADVERTISING NOW!
CALL 800-825-4237 TODAY!

MACINTOSH SYSTEMS COORDINATOR

You've seen us on the Web; you've seen us on CompuServe; now come be part of the technology behind PEOPLE Magazine. PEOPLE Magazine, the standard for personality journalism in America, reaching over 28 million readers each week, is seeking a technically savvy Macintosh expert with proven end-user support skills. As an integral member of a nine person department currently managing the transition from mainframe to Mac-based editorial systems, the Macintosh Systems Coordinator will provide technical support to a large base of editorial Macintosh users. Reporting the the Director of Editorial Technology, the successful candidate will also troubleshoot technical problems, configure equipment, backup networks, track software versions and registrations, and provide training for new users.

The preferred candidate will possess a strong working knowledge of the Macintosh, be familiar with Mac networks, and demonstrate technical support experience. QuarkXpress, PhotoShop, and Illustrator fluency is preferred, along with knowledge of Netware Administrations and Canon Color Laser Copiers (with Fiery and Cyclone RIPs). Familiarity with UNIX, Lotus Notes, or photo transmission applications is a plus.

This position requires superior interpersonal, problem-solving and writing skills. A customer-oriented services approach, along with a demonstrated ability to learn and assimilate new technologies and perform under pressure are all essential. A computer degree, or 2-5 years of related experience is required, and the flexibility to accommodate possible late night shifts on Mondays, Tuesdays, and Wednesdays is also required.

PEOPLE provides excellent benefits, and encourages interested individuals to forward resume to: PEOPLE Magazine, 1271 Avenue of the Americas, Room 4066, New York, NY 10020. PEOPLE Magazine is a Time Inc. publication, and an equal opportunity employer.

Desktops

From Page 1

320-by-240-pixel video capture at 30 frames per second.

Next in the new series is the three-slot Power Mac 7500/100. With a 500-Mbyte hard disk, 16 Mbytes of memory and a CD-ROM drive, it will sell for $2,700; with a 1-Gbyte drive the price will be $3,000. A Level 2 cache of up to 1 Mbyte will be optional on both models.

The machine's 2 Mbytes of video RAM will be able to drive displays at up to 1,280 by 1,024 pixels with 16-bit color and 1,152 by 870 pixels with 24-bit color.

Chris Bales, president of Studio Pacifica of Boulder, Colo., has been beta testing the 7500/100 for several months. "It's a very cool machine, very fast," he said. "We do Asian-language creative services, like a design studio for the Asian markets, so we use the language kits [from Apple] extensively.

"The new [dynamic recompiling 680x0] emulator is great because the foreign-language versions of software we use are six to eight months behind getting [Power Mac] native. Previously, I've had to work on multiple machines at once, but not anymore."

Like Bales, beta tester Phillip Russell, assistant computer resource manager for Purdue University in West Lafayette, Ind., praised the 7500/100. He said he especially liked the case, which offers far easier access to components such as RAM, although he pointed out that this also means it takes less time for thieves to access the components.

"It's a nice little replacement for the [Power Mac] 6100," Russell said. "There's not a case-size limitation for cards and drives, and the video is just as good as the 8100 was six months ago."

Finally, the three-slot Power Mac 7200 will come in two forms; one running a 75-MHz PowerPC 601 for $1,700 and another with the processor running at 90 MHz for $1,900. Both include 500-Mbyte hard disks, 8 Mbytes of memory and a CD-ROM drive. A Level 2 cache of 256 Kbytes to 512 Kbytes will be optional.

The model's 1 Mbyte of VRAM, expandable to 4 Mbytes, supports up to 1,280 by 1,024 pixels with 16-bit color and 1,024 by 768 pixels with 24-bit color.

Sources said Apple is forecasting sales of 40,000 of the Power Macintosh 8500/100 and 82,000 of the 7500/100 in their first three months.

The remaining member of the new PCI Mac team, an entry-level model code-named Alchemy, will reportedly ship in March 1996.

Apple declined to comment. □

Power Mac price cuts for Aug. 7

MODEL	OLD PRICE	NEW PRICE	REDUCTION
6100 8/500*	$1,501	$1,261	$240
6100 8/500/CD	$1,674	$1,391	$283
6100 16/500/CD/DOS	$2,173	$2,087	$86
7100 8/500*	$2,392	$2,000	$392
7100 8/700/CD	$2,672	$2,174	$498
7100 16/700/CD/AV*	$3,159	$2,522	$637
8100 8/700*	$2,993	$2,261	$732
8100 16/1GB/CD	$3,689	$2,873	$816
8100 16/1GB/CD/AV*	$3,867	$3,044	$823
8100 16/2GB/CD*	$4,695	$3,479	$1,216

**Model is now discontinued; existing inventory will continue to be sold.*

Portables

From Page 1

expected to ship in October.

When they arrive, the laptops will sport beefier configurations than their predecessors, without a correspondingly higher price tag. The 5300ce/117, with its 10.4-inch active-matrix display and 117-MHz PowerPC 603e processor, will reportedly start at $3,650 — about the price of a similarly configured PowerBook 540c.

Sticker shock may set in at the sight of the high-end 5300ce's $6,450 price, which includes 32 Mbytes of RAM and a 1-Gbyte hard drive (see chart, Page 1). Sources said even this high-end configuration does not include Ethernet or a modem.

All of the 5300-series machines will instead feature a Type III PCMCIA card slot able to support two Type II cards that can fill the need for a modem and a high-speed network hookup.

According to sources, other features unique to the 5300 series will include a removable floppy drive, an infrared transceiver, and either a single lithium-ion or nickel-metal-hydride battery (see MacWEEK, May 1, Page 1).

Two other 5300-series models are expected to ship in September: The 5300cs/100 and the 5300/100 are expected to be priced at $2,800 and $2,199, respectively.

Duo fans will be able to step up to PowerPC performance in October with the PowerBook 2300c/100. Sources said it will be nearly identical to existing Duos but will include a trackpad input device. Contrary to previous reports, it will carry a starting price of $3,500.

Two additional PowerBooks based on the 5300 design will ship in October. Powered by a 33-MHz 68LC040 processor, which sources said Apple refers to as a 66-MHz CPU in its marketing materials, the 190/66 and 190cs/66 will range in price from $1,650 to $2,199.

Dealer reactions to the delay were mixed, but all conceded that missing the earlier August ship date will primarily hurt home and education sales. "They are likely to miss all of [the] back-to-school [buying season], a time when parents buy laptops for their college-age kids," said Mike Balazsy Jr., retail manager at Madison Books & Computers of Madison, Ala. "Some people are willing to wait, but many are not."

However, the delay should have little effect on the corporate market. "Normally corporate sales pick up as we approach the end of the year," said Joe Colletti, a corporate sales representative at Source One/MicroAge in Campbell, Calif. "August is often slow."

Third-party developers of PowerBook accessories said the delay shouldn't hurt their bottom line. "It has no negative impact whatsoever on our development ability," said Georganne Benesch, director of product marketing/network systems products at Farallon Computing Inc. of Alameda, Calif. "It just delays our revenues." Farallon plans to offer PCMCIA Ethernet for the 5300 series.

Bill Pederson, vice president of operations at Lind Electronic Design Inc. of Minneapolis, which will offer accessories for the new portables, said this is par for the course. "We haven't assumed that Apple would have a lot of PowerBooks available, based on their history," he said.

Apple declined to comment. □

Jon Swartz contributed to this report.

Power

From Page 1

"It's an exceptional value and great news for Mac OS customers," said analyst Pieter Hartsook, editor of The Hartsook Letter, based in Alameda, Calif. Hartsook said the Power 100's low price and Power Mac 8100-level performance will challenge Apple's higher-priced 75-MHz 603-based Performa 6200, which ranges in price from $2,399 to $2,999 (see MacWEEK, July 17, Page 1). "The challenge is back on Apple to beat such rock-bottom prices."

Power Computing said it has now ramped up to full production for the Power 100 and is caught up on its backlog of orders. Sources said the company shipped several thousand units last week, bringing the total of Power Computing clones shipped to more than 5,000.

The mail-order company recently instituted a new QuickShip program that offers same-day shipment for some configurations; Power Computing said that orders for systems that include expanded RAM, a quadruple-speed CD-ROM drive and high-capacity hard drives could take up to 24 hours to fill.

Power Computing's volume shipments will establish the company as a reliable supplier of mainstream Macs, analysts said. They expected that the shipments will also hasten the company's expansion into the OEM business.

"They can pick lots of low-hanging fruit, current Mac users looking for a good deal," Hartsook said. "But the real test will be for Power to open new markets through OEM agreements."

Power Computing Corp. of Milpitas, Calif., can be reached at (512) 258-1350 or (800) 999-7279; fax (512) 250-3390; info@powercc.com. □

Comparison shopping: How far will $3,500 go?

For many, a chance to upgrade to a RISC machine boils down to a choice between a desktop or portable Mac in a fixed price range — one that often caps out at about $3,500, according to several Mac volume buyers. Users will soon have a variety of choices at this price point.

Although PCI Macs and portables are the newest machines, corporate dollars currently extend a bit further with older NuBus models, since users now have a choice in CPUs among Apple, Power Computing Corp. and Radius Inc.

For about $3,500, including the separately priced 14-inch color monitor and a keyboard, Apple will soon offer the PCI-based Power Mac 7500 with 16 Mbytes of RAM, a 1-Gbyte hard drive and a quadruple-speed CD-ROM drive. After the expected price cuts on its NuBus Power Macs, Apple will give users, for the same amount of change, a little more horsepower — a 110-MHz 601 instead of a 100-MHz chip — and nearly the same configuration in a Power Mac 8100/110. The CD-ROM drive is only a dual-speed model, however.

After this week's price drop, Power Computing of Milpitas, Calif., hits the $3,500 price with a 100-MHz 601-based Power 100 with 24 Mbytes of RAM, 2 Gbytes of hard disk space, a 4x CD-ROM, keyboard and monitor.

The just-released 81/110 from San Jose, Calif.-based Radius, employs the 110-MHz 601 and carries a starting price of $4,800. As a result, it would not be an option for corporate buyers with a $3,500 price ceiling.

When comparing desktop options to Apple's upcoming PowerPC laptops, buyers will get significantly less speed for their computing dollar. The PowerBook 5300cs/100 with 16 Mbytes of RAM and a 750-Mbyte hard disk is expected to carry a $3,500 price tag. Yet its 100-MHz 603e CPU should offer performance equal only to a Power Mac 6100/66. That may not please new customers.

"First-time laptop buyers want a portable desktop, meaning they want all the same capabilities and performance they were used to in their desktop machine," said Andrew Seybold, editor in chief of Outlook On Mobile Computing, a newsletter based in Brookdale, Calif. "Second-time buyers will trade off some of those capabilities for portability and battery life."

He added that once users see the performance level of Apple's new PowerPC-based PowerBook puts out they will be impressed. "The video is just superfast for a portable," he said. — *By James Staten*

First to Span the Globe

TDK'S V.34 DF2814 GLOBAL CLASS™ MODEM.

The world's first PC card that can be used in the USA *and* in countries around the world. No legal worries over using a non-certified modem when traveling overseas. No more phone system compatibility hassles when trying to use your modem abroad. TDK makes it easy, fast and reliable. One card, with no awkward external pods to deal with. Its unique Country Selector software with certified country list allows the modem to be configured for use in major commerce centers around the world.

The DF2814 GLOBAL CLASS card also enjoys the same reputation of being a "Performance Fanatic" as our USA domestic version. Designed as ultimate performers, both V.34 cards squeeze the most out of 28.8 Kbps data and 14.4 Kbps fax protocols. With faster downloads and shorter connect times, you save time and money.

Both PC and Apple PowerBook™ versions are available, with free software upgrades as new countries are added.

GLOBAL CLASS.™ Global company.

TDK® *Systems*

Call 1-800-999-4TDK

PowerBook is a registered trademark of Apple Computer Corp.

GLOBAL CLASS™

Retrospect

From Page 1

and exclude mounted network volumes and CD-ROMs. A similar command for network backups will detect newly added hard drives on remote systems without intervention by the network administrator.

Retrospect 3.0 will include EasyScript, an automated-assistant module that helps novice users build complicated backup scripts, sources said. The upgrade will also support Apple-events scripting.

Dantz's intelligent Backup Server technology, debuting in the upgrade, will reportedly ease many of the hassles of network backups. Sources said instead of requiring a rigid schedule for backup sets, administrators will be able to establish separate guidelines for different groups of users, including priority, time and backup set.

The groups could include aliases for users, volumes and backup media; users will be able to make changes to a group without having to modify scripts that refer to that group.

The new server application will also poll the network for mobile users. As they connect, Retrospect will back them up automatically, depending on the machine's priority and time settings. Sources said users will be able to request an unscheduled backup from the Retrospect server.

A beefier scheduling feature will include a wrap-up period, during which a running backup can continue, but the launch of a new script is prevented.

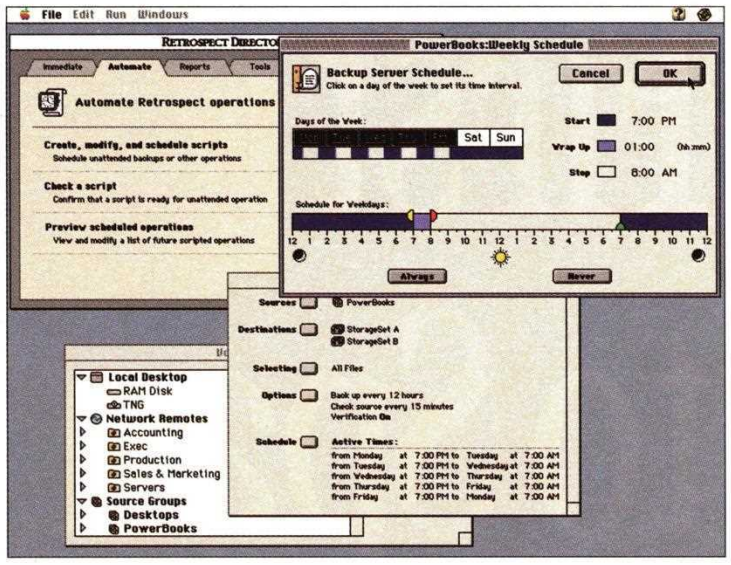
The scheduling routines will also control a new Duplication feature that will be able to copy or synchronize files and folders on the host or over a network, sources said. Duplication will use Retrospect's file selection and filtering capabilities to copy only the items needed to match the target items to the source.

Version 3.0 will reportedly expand support for tape jukeboxes and Iomega Corp.'s new Zip and Jaz drives. The software will recognize when several tape drives are connected to the Mac and back up to the secondary units as necessary. Sources said Dantz will release an optional CD-Recordable module later this year.

According to sources, the new version will be somewhat faster than Version 2.1. It will be optimized for the PowerPC 604 processor.

The pricing for the applications will remain the same, sources said. Upgrades to Retrospect 3.0 will cost about $50; upgrading to Remote 3.0 will cost about $80.

Dantz declined to comment. □



Backup schedules in Dantz's forthcoming Retrospect 3.0 will include wrap-up times that let running scripts proceed but stop others from beginning. The utility's revamped interface will use drop arrows to show or hide details.

Timbuktu

From Page 1

NetWare LANs. Timbuktu Pro currently allows Macintosh users to communicate over AppleTalk and TCP/IP, while the Windows version runs over IPX. Timbuktu Pro 2.0 will reportedly install Novell Inc.'s MacIPX by default and let Mac users choose from the three protocols at will.

When they connect to other machines, users will reportedly have a more intuitive method of transferring files and data. Sources said Farallon is implementing Macintosh Drag and Drop across shared screens, so a user would be able to drag a file or text selection onto the local desktop from a remote Mac running Timbuktu Pro 2.0.

According to sources, the upgrade will include personal address books that store computer names and network addresses of frequently accessed Timbuktu Pro-equipped machines. Farallon is also expected to deliver to the Mac the FlashNotes feature, which is already available in the Windows version. FlashNotes attaches short messages to files sent to remote machines.

The Power Mac-native Timbuktu Pro 2.0 will require at least 2 Mbytes of RAM. Sources said Farallon plans to drop A/UX compatibility. The company will reportedly include an AppleScript dictionary, but Farallon has reportedly not decided if it will formally support Apple-events scripting in Version 2.0.

"I think Farallon has added a lot of incremental things that will make Timbuktu Pro easier to use," said one user familiar with the upgrade. "But I don't think it will change the way people use it. It sounds as though they're not supporting future upgrades of A/UX and abandoning the base of AppleShare Pro users, which is unfortunate."

Another user familiar with the upgrade said: "They're pushing the product forward as fast as anyone, and they have an advantage being cross-platform. The place they're behind is on the dial-in side."

Farallon declined to comment. □

Fargo

From Page 1

FotoFUN! offers only dye-sub printing and outputs to specially coated photographic paper measuring 4 by 7.7 inches.

According to the company, FotoFUN! prints continuous-tone, 203-dpi images measuring up to 4 by 6 inches. The QuickDraw printer outputs in four passes: three for the CMY inks and a fourth to coat the image with a clear overlay that protects the print and shields it from ultraviolet light.

The company said the device generates a print in about two and a half minutes. A package containing ribbon and paper for 36 prints will cost $34.95.

FotoFUN! measures 9.5 by 4.25 by 7.5 inches and weighs 7 pounds. It will ship with either a serial or Centronics parallel interface as well as a Mac or Windows driver.

Fargo said the device will lower the cost of printing full-color photos shot with consumer-market digital cameras, stored on Photo CD archives or downloaded from on-line sources.

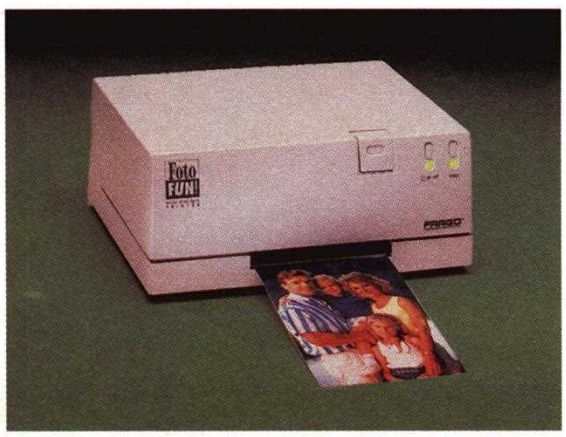
FotoFUN!'s price tag sets it apart from earlier dye-sub devices designed for generating digital photographs, such as Sony Electronics Inc.'s $1,800 UP-D1500C, which offers 4-by-5.5-inch output at 142 dpi, and Nikon Inc.'s $1,995, 142-dpi NP-10 Coolprint, which prints to 3.9-by-5.5-inch media.

However, Michael Weiss, president of MWA Consulting Inc. of Palo Alto, Calif., suggested that the Fargo printer may face its toughest competition from new inkjets that offer high resolutions and superior handling of text and graphics.

"Resolution by itself is not necessarily the most important thing for generating a quality photo-realistic image," Weiss said. "Doing a good job requires a lot of sophisticated software in the printer or host.

"Why would someone use a weak dye-sub device when they can get a very powerful inkjet at the same price and maybe even a lower cost per page?" Weiss said.

Fargo Electronics Inc. of Eden Prairie, Minn., can be reached at (612) 941-9470 or (800) 258-2974; fax (612) 941-7836; webmaster@fargo.com. □



Slated to retail for less than $500, Fargo's FotoFUN! dye-sublimation printer will set a new low price for continuous-tone photographic prints.

David Morgenstern contributed to this report.

StockWatch

	07.27.95 CLOSE	WEEKLY % CHANGE
Apple	46.81	-0.53
MacWEEK Composite*	368.84	8.57
SOFTWARE DEVELOPERS		
Adobe	65.38	11.51
Caere	11.38	24.66
CE Software	2.25	5.88
Graphsoft	7.88	5.00
Intuit	87.50	9.03
Macromedia	52.75	11.05
Microsoft	96.50	0.39
Novell	18.38	-1.34
Oracle	43.38	13.03
Saber	10.75	11.69
Symantec	27.50	12.24
STORAGE		
Conner	13.75	2.80
Iomega	25.63	18.50
Maxtor	4.38	7.69
Pinnacle	16.50	8.20
Quantum	26.00	13.66
Seagate	45.50	9.97
SyQuest	16.88	19.47

	07.27.95 CLOSE	WEEKLY % CHANGE
PERIPHERALS VENDORS		
AmeriQuest	2.38	18.75
Asanté	4.75	5.56
Focus	2.31	0.00
Global Village	16.88	0.00
HP	81.25	4.50
QMS	4.75	11.76
Radius	9.88	-9.20
RasterOps	7.38	3.51
Shiva	47.00	13.25
Tektronix	48.50	0.00
DISTRIBUTORS		
CompUSA	35.00	11.11
IE	13.00	-3.70
Merisel	6.63	-3o.64
Tech Data	13.88	3.74
INDUSTRY INDICATORS		
Compaq	52.13	7.47
IBM	110.88	6.48
Intel	68.75	6.59
Motorola	78.88	7.68
SGI	43.00	4.88
NASDAQ	1010.66	5.21

**The MacWEEK Composite is calculated by adding the stock prices of the following companies: Apple, Adobe, Asanté, Caere, CE Software, Global Village, Intuit, Macromedia, Radius, RasterOps, Shiva and SyQuest. Source: Nordby International Inc.*

ZIFF-DAVIS PUBLISHING CO.

Chairman and CEO Eric Hippeau

BUSINESS MEDIA GROUP

President Ronni Sonnenberg
Executive Vice President Claude P. Sheer
Vice President, Magazine Networks Joseph Gillespie
Vice President, Central Advertising Sales Bob Bader
Vice Presidents Don Byrnes, Al DiGuido, Dan Farber, J. Samuel Huey, Michael Miller, Paul Somerson, Jim Stafford
Executive Directors, Ziff-Davis Magazine Networks Ellen Atkinson, Anna Zornosa
Managing Director of Ziff-Davis Preferred Customer Program (ZDPC) Lucy Wohltman
Directors, Ziff-Davis Magazine Networks Anne Fitzpatrick, Mark Glasner, Michael Krieger, Jeff Lehman, Kelly Lowman, Melinda Maginn, Scott Murphy
Marketing Director, Ziff-Davis Magazine Networks Michael Perkowski
Marketing Director, Ziff Davis Magazine Networks/ZDPC Jeff Bruce
Director of Public Relations Brenda Wheeler
Co-Directors of ZD Benchmark Operation Bill Catchings, Mark L. Van Name
Director of ZD Labs Robert W. Kane

ZIFF-DAVIS PUBLISHING CO.

President, Consumer Media Group J. Scott Briggs
President, Ziff-Davis Marketing and Development Jeff Ballowe
President, Computer Intelligence/InfoCorp Bob Brown
President, International Media Group J.B. Holston III
Senior Vice President, Circulation Baird Davis
Vice President, Assistant to the Chairman Tom McGrade
Vice President, Business Manager T.L. Thompson
Vice President, Circulation Services James F. Ramaley
Vice President, Corporate Research and Analysis Elda Vale
Vice President, Controller and Treasurer Timothy J. Mitchell
Vice President, General Counsel and Secretary J. Malcolm Morris
Vice President, General Manager Bruce W. Bourne
Vice President, Human Resources Rayna Brown
Vice President, Marketing and Development Group Herbert Stern
Vice President, Alliance Marketing Janet Ryan
Vice President, Production Roger Herrmann
Vice President, Technology Bill Machrone
Chief Information Officer Wellington Y. Chiu
Executive Director, Information Systems Owen Weekley
Executive Director, Marketing Services Jim Manning
Production Director Walter J. Terlecki
Director of Licensing Gertrud Borchardt
Director of Public Relations Gregory M. Jarboe

Looking ahead

AUGUST 7

Solutions: The latest graphics drawing programs offer more features and ease of use.

Special Report: MacWEEK's annual survey of the top 200 Mac business sites and the top 50 education sites is updated with a look at Mac clones.

AUGUST 14

Solutions: An overview of presentation-software packages that include animation features.

REVIEWS IN THE WORKS

- Frame Technology Corp.'s FrameMaker 5
- Eastman-Kodak Co.'s Digital Camera 40

For more information on future Solutions and Special Report topics, call (415) 243-3581.

Products in this issue

ACCOUNTING

State of the Art FlexWare 8.0 24

COMPUTER-AIDED DESIGN

Ashlar Vellum 3D 2.7 10

COMPUTERS & SYSTEM SOFTWARE

AGE XoftWare for Mac OS 12
Apple Alchemy 1
Apple Performa 6200 1
Apple Power Mac 6100/66 38, 74
Apple Power Mac 6100/60, 7100/66, 8100/80 38
Apple Power Mac 7500 74
Apple Power Mac 8500/120, 7500/100, 7200 1
Apple Power Mac 9500 78
Apple Power Mac 9500/132 4, 38
Apple Power Mac MacX 12
Apple PowerBook 190/66, 190cs/66, 2300c/100, 5300 series 1
Apple PowerBook 5300ce 3
Apple PowerBook 540c 3
Apple PowerBook 5000 78
Apple PowerBook 5300cs/117 74
Insignia SoftWindows 2.0 23
Microsoft Windows 95 23
Power Computing Power 100 1, 74
Radius 81/110 74

DATABASES

ACI 4th Dimension 12
Blyth Omnis 12
Claris FileMaker Pro 12

GRAPHICS HARDWARE

Adaptive Solutions PowerShop PCI card 10
ATI ATI PCI graphics card for Power Mac 9500/132 4
Number Nine Imagine128 for Power Mac 4

GRAPHICS SOFTWARE

autodessys form•Z RenderZone 2.7g1 24
binuscan binuscan II Professional Toolkit 10

INTEGRATED PACKAGES

Claris ClarisWorks 4.0 26

INTERNET

Delphic AL•I Internet Server 23

MULTIMEDIA

Apple QuickTime Music Toolkit 10
Motion Works PROmotion 1.5.3, ADDmotion II 28
Oracle Oracle Media Objects 10

NETWORKS

Claris Claris Emailer 4
Lotus cc:Mail 23
Miramar MacLAN Connect 5.5 12
SoftArc FirstClass 23
Spider Island TeleFinder BBS 3.5 14
Stalker CommuniGate 12

NUMERIC TOOLS & CHARTING

SPSS SPSS 6.1 6

PRESENTATION HARDWARE

Electrohome 8100, 8500, 9500-LC 6
Polaroid Polaview 80, 90, 95, 105 6
Sharp XG-E650UB Mark II 6

PRINTERS & PRINTING TOOLS

Apple StyleWriter 1200, Color StyleWriter 2400 38
Fargo FotoFUN! 1
HP DeskJet 850C, 855C; DeskWriter 660C 4
HP DeskJet 1600CM 6
Nikon NP10 Coolprint 1
Sony UP-D1500C 1

SCIENTIFIC TOOLS

National Instruments LabVIEW, HiQ 6

STORAGE

DynaTek CDS656 6
Panasonic LK-MC604S 6
Smart and Friendly CDJ 7004 6

SYSTEM ENHANCEMENTS

National Instruments PCI-GPIB card, PCI-MIO-16XE-50, PCI-1200, PCI-DIO-96 6

TELECOMMUNICATIONS

Angia SafeJack 28.8C, SafeJack RJ-11 adapter 14
Archtek SmartLink 35
AT&T Paradyne Comsphere 3800Plus series, 3810Plus 35
Cardinal 28.8 MVP288XF 35
Logicode Quicktel 2814XVM 35
Megahertz CruiseCard PC fax modems 14
Motorola V.3400, Power Class 35
Practical Peripherals MacClass 288 Mini Tower II V.34 35
Supra SupraFAXModem 288 35
U.S. Robotics Courier "V.Everything with V.34" modem 14
U.S. Robotics Sportster Vi 28.8 fax modem, Mac & Fax V.34 35
various V.34-standard modems 36
Zypcom Z34-SX 35

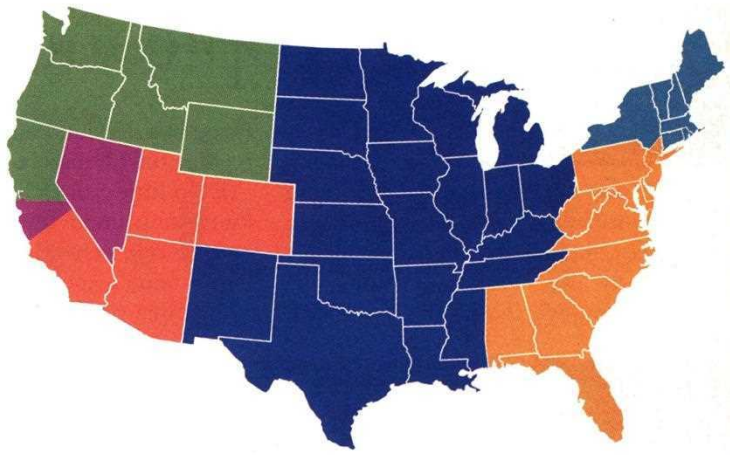
UTILITIES

Dantz Retrospect 3.0 1
Farallon Timbuktu Pro 2.0 1

ZiffNet/Mac This Week

Where to find us on-line

On eWorld, go to the MacWEEK area at shortcut: macweek. In ZiffNet/Mac on CompuServe, you'll find the MacWEEK Forum at go zmc:macweek and the free MacWEEK News menu at go zmc:mwnews. On the World-Wide Web, visit our home page at http://www.zdnet.com/~macweek/.



MacWEEK sales offices

John Blake
Group Associate Publisher
(617) 393-3075

Jeff Cohen
Group National Advertising Director
(415) 378-5692

MarketPlace
(800) 825-4237

Display ads

Northeast [1]

Susan B. Price
District Sales Representative
(617) 393-3060

James Meyer
Account Executive
(415) 378-5640

Midwest

Tom Hernandez
District Sales Representative
(312) 214-7343

Dan Hudson
Account Executive
(415) 378-5622

Mid-Atlantic/ Southeast [2]

Laura Mosier
District Sales Representative
(617) 393-3692

André Lengyel
Account Executive
(415) 378-5677

Northwest [3]

Ellen Skugstad
District Sales Manager
(415) 378-5657

South Bay [4], Nevada

Chris Marrow
District Sales Representative
(415) 378-5651

Casie Davis
Account Executive
(415) 378-5630

Southwest [5]

Dale Hansman
District Sales Manager
(310) 268-1376

Maureen O'Sullivan
Account Executive
(415) 378-5605

[1] Includes New Brunswick, Newfoundland, Prince Edward Island, Quebec, Manitoba and Ontario, Canada

[2] Includes New York metropolitan area

[3] Includes Northern California north of San Mateo; Alaska; and Alberta and British Columbia, Canada

[4] Includes San Francisco Bay Area south of the San Mateo Bridge to San Luis Obispo

[5] Includes Southern California south of San Luis Obispo, Arizona, Utah and Colorado

Advertiser Index

Aladdin Systems 30
Apple 14, 25, 27, 29, 31, 37
APS Technologies 42-43
ClubMac 39-41
Computer City 19
Corel 80
CRA 45
Direct Connections 52
DirecTech 44
Distributed Processing 11
Graphsoft 78
La Cie 32-34
The LLB Company 48-49
MAC Xtra 51
MacSale International 65
Microsoft 8-9
Microtech 7
NetWorld+Interop 20
Now Software 5
Olympus Image 79
Pinnacle Micro 2
Power Computing 15-17
ProDirect 50
QLogic 21
Shreve Systems 70-71
SoftArc 13
Spin Peripherals 46-47
Tahoe Peripherals 57
TDK Systems 75
TechWorks 53

One Apple video size fits all

Every city worth wishing you could live in has one: the part of town — usually no more than a glorified strip — where the essence of the city supposedly can be found. It's particularly easy to locate during the tourist season, which, in case you've been living in a dark and non-networked cave, is going full tilt just about now.

Even little San Francisco, the city that knows how important pretension is when you travel in a crowd of your betters, has a world-famous tourist magnet called Pier 39 (not that you'll find any working longshoremen on it). This small diversion into the choppy waters of the bay is certainly not without a purpose, though what that might be other than to sell tacky T-shirts remains elusive.

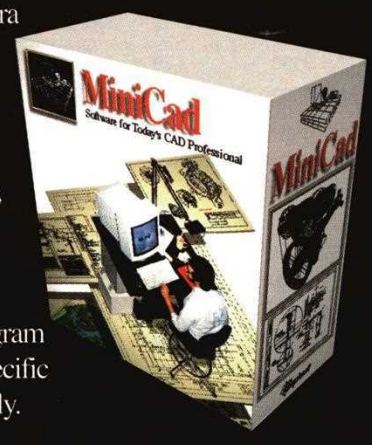
Why Apple chose to use the name of the city and its tourist entrapment zone as code names for its new video card is a matter for speculation, but the company's latest move to corner a market once safe for third parties is supposedly very hot. For $499 or so you get a video card with MPEG-1 playback.

And rare is the VideoSpigot user whose card could deal out 30 frames per second/60 fields JPEG compression and playback like this one will.

All you need is a PCI Power Mac equipped with a digital audio-video slot (any of the Power Surge Macs will do) to put it in, plus the patience to wait until Macworld Tokyo, when the card (with both English and kanji versions of the exceptional software) will ship alone and bundled with the Alchemy CPU.

Should Graphsoft's MiniCad 5 be your CAD Program? Take the Quiz.

- I want a full-featured, proven market leader which can handle any job: 2D, 3D, cost estimation and client presentations.
- I want a program that runs on both the 68K-based Macintosh and the Power Macintosh. At no extra charge!
- I want a CAD program that is tailored to my needs, with specialized tools for architecture, mechanical engineering and design.
- I want an expandable CAD program which can be customized for specific solutions easily and inexpensively.
- I don't want to spend a lot for training or experience an enormous learning curve.
- I want an established company with constant R&D funding, so that my investment stays safe.



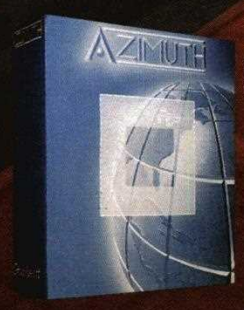
45 DAY MONEY BACK GUARANTEE AT PARTICIPATING DEALERS

Accelerated for Power Macintosh

MiniCad 5 offers all of the above and more. The award-winning software has been hailed as the "features champion" by Macworld Magazine. Graphsoft is dedicated to aggressive investment in CAD R&D. Graphsoft customers stay more productive than their competitors because Graphsoft supports both the latest technology and evolving user needs. MiniCad has long been the price/performance leader in Macintosh CAD. Don't be steered away from MiniCad by VARS who want you to buy high-priced CAD products that are hard to learn and only do a few things well. The VARS won't tell you that MiniCad 5 ships with a multi-media training CD, or that you receive 18 months of free technical support with Graphsoft products or upgrades. In short, MiniCad keeps more of your money in your pocket. Buy MiniCad 5 and save!

MiniCad 5 also includes: speed increases up to 100% even on 68K-based Macintoshes, a Claris CAD conversion program (including a $495 competitive upgrade price, a Claris CAD translator and a helpful conversion guide), translators for importing and exporting to the other major CAD products, an upcoming Windows version, a powerful QuickTime key frame animation tool for creating and exporting stunning walkthrough and flyover presentations and a no-hassles 45-day money-back guarantee through participating dealers. Contact Graphsoft today for detailed literature. To order immediately, call MacWarehouse, MacConnection, or your local dealer.

Mechanical, Architectural, & Advanced Design Modules Included.



MacUser MW EDITORS' CHOICE MacWorld Macworld

Also from.... Graphsoft Inc.

Graphsoft

Azimuth

The ultimate map creation tool, including ten cartographic projections and more! Used by US News & World Report. 4 mice!

Blueprint

Full-featured 2D drafting. Experience ease of use, high precision and an affordable price. 4 mice. Macworld Editor's Choice!

10270 Old Columbia Road, Columbia, Maryland 21046

Ph: 800-413-0936 or 410-290-5114 Fax: 410-290-8050 In Canada Call Paxar At: 604-474-8975

Power Macintosh and QuickTime are trademarks of Apple Computer Inc. MiniCad, Blueprint, and Azimuth are trademarks of Graphsoft, Inc. Claris CAD is a trademark of Claris

Big boy bug bite

By now it has become somewhat of a tradition in the Mac community. "It" in this case being a bug related to memory in the fastest Mac of all time. It seems the Power Mac 9500 memory controller causes sporadic crashes.

Fortunately, Apple caught on quickly, and only the machines from the first production round are affected. But don't expect Apple to track you down and force something silly like a field upgrade or anything on you. Demure to a fault, Apple will wait until you spend days and thousands of dollars on consultants to run through all the other possibilities. If it's satisfaction you want, you'll have to find the courage to make the first move.

Mighty press

And don't think that Apple is alone in moving slowly to fix its 9500 problems. QuarkXPress doesn't behave too well when set loose on a 9500, and there's no solution in sight because Apple can't find a spare 9500 to send Quark, which is apparently too wedded to its "tough support" philosophy to go down to the corner high-tech outlet and buy one for its tech support department. At least XPress users aren't spoiled by overzealous attention to their needs.

Line of sight

The new PowerBooks aren't even here yet and Apple is already showing focus groups possible prototypes of the next round. One flavor is an even more boxy PowerBook 5000 with a 15-inch screen and VST-style plate batteries to keep the whole rig afloat. The fact that by next year IBM will probably offer the same features in a package weighing in at less than 9 ounces and with a battery life measured in weeks is of no consequence, apparently.

And don't set your sights on AppleTalk IR when this fall's new PowerBooks finally arrive. The software's not going to be ready in time, though you'll get it free later. □

But if you've got the tip, brother, the Knife's ready to deliver the MacWEEK mugs. He's right on time at (415) 243-3544, fax (415) 243-3651, Internet (mac_the_knife@macweek.ziff.com), AppleLink (MacWEEK) or CompuServe/ZiffNet/Mac.

WE LOVE SYQUEST DRIVES SO MUCH WE CAN'T GET ENOUGH OF THEM.

SEND US YOURS TODAY.

Your old SyQuest® drive may not be worth much to you anymore. But it's worth a $100 rebate from us.

That's because — thanks to SyQuest — you can really appreciate what a truly superior storage technology Deltis magneto-optical is. And why desktop publishers, service organizations and others are making it their medium of choice.

$100 trade UP

For example, Deltis MO holds more for a lot less — with a 230 MB Deltis 3.5-inch disk costing about a third as much as SyQuest's 200 MB, 5.25-inch media. Highly resistant to shock, dust, temperature extremes and magnetic fields, you can write on Deltis media millions of times. And while SyQuest only guarantees their media for five years, Deltis MO is guaranteed for life by Olympus Optical Co., Ltd. — a company that's been making cameras and other advanced optical products far longer than SyQuest has been in existence.

Plus, only Deltis MO comes with time-saving, cross-platform software for either Mac, pre-press, DOS or Windows. And besides being the fastest MO on the market, its new low price will make it move even faster.

So what are you waiting for? Call **1-800-561-9354** today to find out how you can swap your SyQuest for a $100 rebate towards the purchase of something a whole lot better — an award-winning Deltis MO storage solution from Olympus.

DELTIS

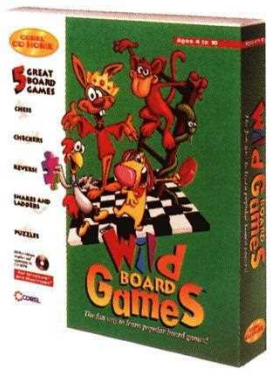
And don't worry about your old drive. We'll treat it with all the respect it deserves.

OLYMPUS®
OLYMPUS IMAGE SYSTEMS, INC.

Deltis is a trademark of Olympus Optical Company, Ltd. SyQuest is a registered trademark of SyQuest Technology, Inc. ©1995 Olympus Image Systems, Inc.

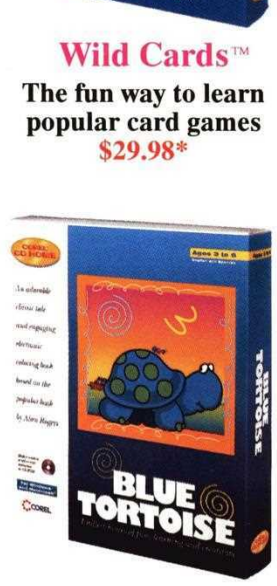
COREL®

THE WORLD LEADER IN CD-ROM TECHNOLOGY



Wild Board Games™
The fun way to learn popular board games
$29.98*

Wild Cards™
The fun way to learn popular card games
$29.98*



Blue Tortoise™
Endless hours of fun, learning and creativity
$29.98*

NIKOLAI'S TRAINS™

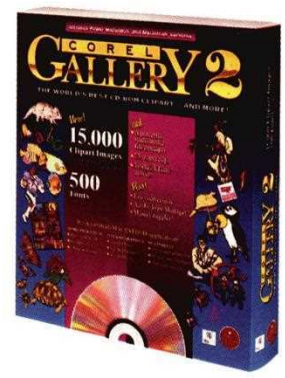
$48.98* *An interactive storybook on CD-ROM*

Nikolai's Trains™ is a story of two friends—Nikolai™ and his toy cat Neow-Neow™—their trains, and a great race across the landscape of Nikolai's imagination. Each colorful page is fully-interactive and has dozens of enjoyable animations set against a background of music and art. This captivating story will offer both children and adults endless hours of education and exploration.

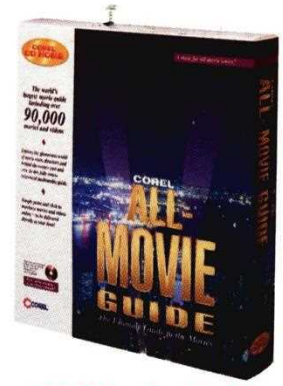
Corel Professional Photos™ on CD-ROM
The world's leading photo CD-ROM collection
Individual titles: $18.98* each

Volume Sets
2,500 photos on 25 CD-ROMs in each set
$139.98* each

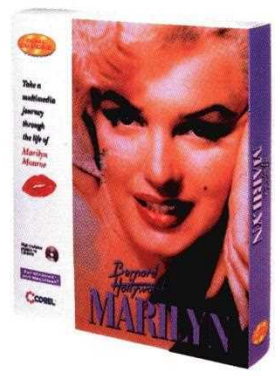
Corel® Stock Photo Library 1 and 2
20,000 royalty free high-resolution photos on 200 CD-ROMs in each library
$699.98* each



Corel GALLERY 2™
The world's best CD-ROM clipart ...and more!
$64.98*



All-Movie Guide™
The ultimate guide to the movies
$48.98*



Bernard of Hollywood's Marilyn™
A multimedia journey through the life of Marilyn Monroe
$48.98*

From the makers of CorelDRAW

The Mac Zone™
Your Catalog SuperStore
1-800-248-0800

KUR-0161

*US$ plus applicable taxes.

COREL®
custserv@corel.ca
Call now for faxed literature!
1-613-728-0826 ext. 3080
10,000,000 CD-ROMs shipped!